

the American Perfumer and ESSENTIAL OIL REVIEW

COSMETICS - SOAPS - FLAVORS

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Editorial Comment

Dwindling Profits

The net income after taxes of all United States manufacturing corporations amounted to \$2.4 billion during the third quarter of 1947, according to the quarterly report made public jointly last month by the Federal Trade Commission and the Securities and Exchange Commission. This amount was nearly \$100 million less than profits after taxes during the preceding quarter and about \$200 million below those in the first quarter of 1947. The gradual decline over the year reflected higher costs and expenses more than offsetting higher sales.

According to the report, total sales of all manufacturing corporations for the third quarter are estimated \$37.3 billion contrasted to \$36.9 billion during the preceeding quarter.

Pertaining to Trademarks

The American Drug Manufacturer's Association recently brought to our attention the role that publications play in protecting trademarks. We hope it was only a form letter as THE AMERICAN PERFUMER has always endeavored to cooperate with manufacturers in every way possible in the protection of such trademarks, realizing that they are often enough the firm's most valuable property. If we have been remiss in this matter, we would appreciate its being brought to our attention.

Printing Troubles

As we wrote in this column last month, we are having printing trouble. As we write this editorial we have not yet received a bound volume of the March issue. If we haven't, you certainly haven't. We're sorry. We've done everything possible to expedite the publication of this issue, including working holidays, long train trips, working through into the early hours of the morning. We want you to know that we have done our best and will continue to do so until that happy time when we are again on schedule.

the
answer
to
many
product
problems

Polyethylene Glycols

PHYSICAL PROPERTIES				
LIQUID POLYETHYLENE GLYCOLS				
	200	300	400	600
Average Molecular Weight	190 to 210	285 to 315	380 to 420	570 to 630
Flash Point, °F.	350	385	435	475
Saybolt Viscosity at 210°F., sec.	38 to 41	42 to 46	45 to 55	60 to 70
Comparative Hygroscopicity (62% R.H. at 75° F., Glycerol = 100)	90	70	60	50

The polyethylene glycols may hold the answer to your product problems — as they have in so many other industrial applications.

The polyethylene glycols are a series of liquid polymers that are completely soluble in water and in many organic solvents. Water-white, these commercial compounds are less volatile than glycerol and hence more permanent. They are heat-stable, inert to many chemical agents, and do not hydrolyze or deteriorate. Their special characteristics can be advantageously applied in a variety of end uses.

Some present uses of polyethylene glycols

Plasticizers and dispersants—for casein and gelatin composi-

tions, glues, zein, cork, and special printing inks.

Mutual solvents—for zein and other proteins, dyestuffs, and essential oils.


Lubricants—water-soluble lubricants in warp sizes and yarn conditioners.

Intermediates—for production of alkyd-type resins — emulsifying agents—detergents.

Humectants—particularly effective because of lower vapor pressure, wide solvent power, controllable hygroscopicity, and lower viscosity.

Complete data on these versatile materials is contained in the free booklet F-4772; when writing for your copy please address Dept. G-4.

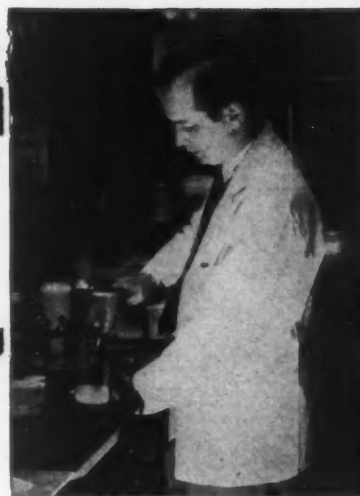
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Desiderata

by MAISON G. DENAVARRE



M. G. DeNavarre at work in his laboratory

COLD WAVES & BEAUTY SHOPS

It seems that if it isn't one thing then it is another. Now a fatal poisoning of a 17 month old child by potassium bromate solution used in setting or neutralizing a cold wave. Someone was very careless.

No matter how well it may have been labelled, the 17 month old child couldn't read the directions, if it were labelled *for external use only*.

Our society is getting more and more complex. Powerful poisons by the scores are being found in many average homes. Rat poison, DDT, 24-D, Rose nicotine, ant powder and other similar poisons can now move over for a new one—potassium bromate. The thioglycollate solution if ingested, would probably have been no less dangerous.

Where shall the line be drawn?

Abetting this is the recently formed Home Beauty Institute, largely supported by one company. The idea, in a nutshell, is to promote the sale of home wave kits, and to neutralize adverse propaganda. Well, some such institutes have worked out, but most of them have folded up. (Remember the one that was going to study cold waving thioglycollates—to be supported by suppliers of chemicals and of finished goods? Haven't heard much about it lately, have you?)

No one will stop women from giving themselves a permanent wave. Once that is digested, you can start from there and work on up. Beauty shops will simply have to adjust themselves to giving fewer permanent waves, particularly if money gets tighter. There are many other ways in which they can still

make a living. Permanent waving was cut throat competition between beauty shops and manufacturers of waving supplies before the war. There has been no change in this religion.

But if you go into the average beauty shop and ask for a scalp massage, the operator hardly knows where to begin. Yet it was one of the many things she was taught. No, *beauty* as the shop operator understood it meant only one thing . . . shampoo, finger wave and permanent. The shampoo and finger wave will not support the shop. The customer doesn't like to spend over an hour to get them either. Faster drying methods are imperative.

The beauty shop for years was a luxury. During the competitive era following the last depression, prices were slashed to bits. The average shop had no credit because they folded up almost as fast as they opened up. Operators were being turned out so fast that it seems most every girl is an operator. Yet when you interview them for any work other than to wave, set or shampoo hair, they are practically lost.

Women manicure their own nails—not because they do it as well as the beauty operator, but because it is cheaper for one thing, and they don't have to waste a lot of time getting the service. Ours is a fast living era. No one wants to wait for anything if one can help it. So it is with home waving. Women don't have to lose much time getting a wave that *satisfies them*, whether it be cold or hot. You'll never stop them from doing it. So, you had better live along with it.

This writer has had the conviction

that cold waving is dangerous enough in the hands of a good operator. It will be a lot rougher in the hands of the average woman. For the ordinary person is careless and negligent. Labels don't mean too much until after the accident happens . . . then they are read. Children can't read or they may be too young to understand. So, you have to devise products so safe that they can almost be eaten without much more than a burp.

Cold waves got a blow to the solar plexus some two years ago when A.M.A., Good Housekeeping and others castigated them. Manufacturers and suppliers alike lost about half of their business and wondered when they would lose the rest. They formed a group and talked about raising thousands upon thousands of dollars to study cold waving. Then the F.D.A. pronounced thioglycollates safe if used as directed and if properly labelled. That was the green light. Everyone went into high gear. Now at a 100 mile per hour speed, one wonders what will happen and where. Cagily though it be, one of the consumer groups has gone so far as to evaluate them.

COSMETIC CHEMISTS MEETING

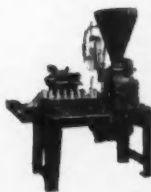
The next meeting of the Society of Cosmetic Chemists is on Wednesday, May 19th, at the Biltmore Hotel in New York City. All chemists and technicians won't want to miss the excellent papers given. Chemists will not want to miss the *professional* discussions for the advance-



YEARS AND YEARS OF *Experience*



For half a century, and more, consumers and manufacturers, alike, have been buying and liking *New England Collapsible Tubes*. Today's great grandfathers started buying toothpaste in our tubes when they were young; the modern young generation of now-a-day buys SEAFORTH Shave Cream and many another nationally known product in streamlined New England "Sheffield Process" Collapsible Tubes. Our many years of experience and progress in the making of better Tubes brings you a know-how that is invaluable. Our craftsmanship has been developed to a high degree of perfection, assuring fine uniform quality, outstanding sturdiness of tube metal thru an exclusive method of melting, mixing and tempering raw metals, and, crisp and clean tube decoration. We can even fill your bulk product, as illustrated at the right, if your tube filling facilities are inadequate. Discuss your tube packaging problems with one of our trained field men . . . phone, or write, *now*.



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ment of the cosmetic chemist. It is the one place you can speak your mind for the betterment of the group. Dr. Taylor, president for 1948, has had a lot of ideas about professional status etc., and he will undoubtedly be working up some of them.

Then too, the Society is working on a couple of pretty good new things. One is to award a medal to outstanding cosmetic chemists for achievement. The other is to have a central and complete library for the cosmetic chemist. To this end, Dr. Taylor, there is a copy of "The Chemistry and Manufacture of Cosmetics" ready to be donated once I know where to send it.

PERFUMER AVAILABLE

A note on my desk from a European perfumer tells me that he

would like to connect with an American company. Says he is good on flavors, cosmetic perfumes and extracts. Samples of his ability smelled quite nice—somewhat like typical French bouquets. If you are interested, I can give you his name.

NEW INGREDIENTS

Among the new ingredients that have come in during the last few months are the following: a new cationic hair rinse sold as a 25 per cent solution . . . hydrogenated fats as lipstick ingredients, low iodine value, various melting points, odorless and cast easily . . . new face powder material . . . new large supplier of alkyl aryl sodium sulfonate . . . hexylene glycol . . . new method of sampling hydrous creams without using tubes, jars or cans. . . .

tilled water is added to the pure alcohol and otto is added, it becomes milky and white and creamy. What is the method to obtain a quotation on our own private made perfume.

S. M. E.—PHILIPPINE ISLANDS

A: You are using insufficient alcohol. Raise your alcoholic strength to 75 or even 85 per cent and you will find your solution to be clear. There is no known method to quote on private made perfume for marketing. Every manufacturer has to devise his own price. In this line, there is a book entitled "Marketing Drugs and Cosmetics" by Bader and Picker, available from THE AMERICAN PERFUMER, which may give you some ideas on how to price and sell your product.

689. FOAMLESS DETERGENTS

Q: *I am interested in a good foamless detergent for use in automatic home laundries. You mentioned it in one of your recent articles in THE AMERICAN PERFUMER. Also do you know of a colloidal material which I can use in conjunction with this foamless detergent to provide better washing and suspending action, and still not have the tendency to foam insoluble metal salts in hard water. I would also like some information on the fluffy builders you mentioned.*

O. I. L.—ILLINOIS

A: The Nacconols and Santomerse are being used along with the sulfonated fatty alcohols of the Dupanol type, in automatic home laundry detergents. In the case of the foamless type of detergent, it would be our opinion that some of the poorer foaming but good detergent materials would be the ones selected together with pyrophosphates to act as builders and to help detergency. In this class are the Tergitols, Igepals, Tweens and related products. These are usually liquids and are absorbed on to the builder. The fluffy builders mentioned are best manufactured on the premises rather than bought because of the high cost of containers for them. The particular supplier of this material issues licenses on a royalty basis. The name of this company goes to you under separate cover.

QUESTIONS AND ANSWERS

686. ALL PURPOSE CREAM

Q: *I am interested in securing a formula for an all-purpose cream that will hold its luster in a non-air-tight package, having a very slight cooling effect such as Johnson's baby lotion, having the texture of the cream slightly softer than the standard face cream, having ingredients that would be non-irritating to the maker as well as the user.*

B. R.—NEW JERSEY

A: It will be practically impossible for you to produce a cream that will retain luster even after evaporation of water from its surface because the luster of the cream is invariably dependent upon the fineness of the particle size of the emulsified fats. When the cream dries, the particles form a solidified mass with very little luster. For an odor, we suggest that you present the problem to your perfume supplier.

687. VOLATILE SOLVENTS

Q: *Would you please let me know if there are any solvents, other than ethyl alcohol, that could be used for making-up perfumes. This has been a problem for some time and if you*


can give me any assistance it would be greatly appreciated. It does seem that with all the solvents being made that there would be something that would be fairly suitable for the purpose.

D. R. S.—CALIFORNIA

A: Of the very volatile solvents for perfumes, only ethyl and isopropyl alcohol satisfy the bill, the latter being usually unsatisfactory because of its own characteristic horse-radish-like odor. The glyceryl fumarate you mention in one part of your letter is somewhat like propylene glycol in its solvent action, but since propylene glycol is commercially available at low prices, this would be the material for you to experiment with. Other solvents that have been used are the ethers of ethylene, diethylene, propylene, dipropylene and tripropylene glycols. To our knowledge glyceryl fumarate is not commercially available.


688. ALCOHOL SOLUTION

Q: *Will you inform me which is the best method in obtaining a clear solution of 65 per cent alcohol with oil otto and water? Whenever dis-*




JASMATONE—An exceptionally well fixed Jasmin scent. May be used in any product — by itself — as part of another odor — or to cut natural Jasmin.

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DIANTHATONE—An excellent Dianthus base for producing Carnation or developing a spicy note in certain types of odors. Unusually well fixed.



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The American Perfumer

Glycerin is Versatile and Valuable

RAYMOND E. COOPER

SHORTLY after the American Revolution a discovery was made which, though attracting little attention at the time, was destined to affect the progress of civilization in a quiet but important way. It was in 1779 that a young Swedish chemist named R. W. Scheele made the discovery. One day, while making lead plaster, he produced a soap by mixing olive oil with litharge. Upon washing this soap with water he found that the water had changed to a thick solution which, after the water evaporated, left a viscous, heavy, sweet liquid.¹ Scheele gave the name "olsuss" to this new liquid.²

Scheele's "olsuss" remained in obscurity until about 1813. In that year, a young French chemist named Michel-Lange Chevreul, while conducting extensive research in animal fats, uncovered the many properties which have made "olsuss" a very valuable material.³ Chevreul renamed the liquid, glycerin, after the Creek word "glykeros" meaning "sweet."¹

PROPERTIES OF GLYCERIN

Among the many properties which have made glycerin "the material of a thousand uses" are its high boiling point, its ability to mix with water,⁴ its ability to absorb as high as 40 per cent moisture from the air,⁵ its ability to dissolve many things not soluble in water,³ a sweetness rating higher than cane sugar, and its fitness for consumption by human beings.⁶ This last named property was confirmed a few years ago by human feeding experiments conducted at the University of Chicago. An article in the *Journal of the American Medical Association* covering these experiments reveals that large amounts of glycerin have been found to produce no demonstrable undesirable effects in human beings.⁷ It has also been found that glycerin is a natural constituent of the human body, resulting from the normal digestion of fats.⁸

USES OF GLYCERIN

Glycerin's high solvent powers, sweetness and non-toxicity are of particular value to the flavor industry. When used as a solvent it serves three purposes—extractant, vehicle, and blending and smoothing agent.⁹ Its value as a flavoring aid is indicated by the fact that it is one of the few ingredients allowed in vanilla extracts by the Food and Drug Administration.

A good imitation vanilla flavor formula has been advanced by C. W. Lenth. It is made up of corn syrup, glycerin, water, vanillin, coumarin and caramel. He cited the advantages of this formula as being stable, fluid and free from fermentation.⁹

Dr. Leffingwell has shown many uses of glycerin in flavors, among them are: a menstruum in coffee flavoring compositions; a substitute for a good part of the alcohol in peppermint oil formulas; to blend odors and flavors in artificial flavoring oils and essences.⁶

Glycerin assures thorough and even dispersion of coloring agents. This property is of especial importance in food-coloring compositions. Leffingwell and Lesser, in an article a few years ago, listed several coloring solutions, pastes, and compositions.¹⁰

As eminent an authority in the flavoring field as John H. Beach, former president of the Flavoring Extract Manufacturers' Association, recognizes the value of glycerin to flavor manufacturers.¹¹

GLYCERIN IN COSMETICS

In addition to its increasing use in flavorings, glycerin is assuming a more important role in the cosmetics field. It is used primarily as a solvent. In addition it is used as a reducing agent, emollient, and emulsifying agent.¹²

A prominent writer on cosmetics has said that if glycerin is properly applied it has the quality of imparting brilliance, softness, and delicate coloring to the skin.¹³

How valuable this is when we consider the reason given by *Encyclopaedia Britannica's* writers for the use of cosmetics in this country. They say, "the fundamental reason for the use of cosmetics in America is because the brilliant sunlight of the Western Continents tends to burn all the color out of the skin."²

Dr. Goodman in his book on *Cosmetic Dermatology* refers to the wide use of glycerin in skin toning lotions, brushless shaving creams, shaving soaps, deodorant pastes, facial clays, epilating pastes, and eyewashes.¹²

Stanislaus and Meerbott enumerate other uses for glycerin. They give several glycerin containing formulas for face creams, liquid blush creams, and cold cream soaps. They also mention its use in freckle applications, both cream and lotion.¹⁴ Glycerin's ability to dissolve the coloring matter in moles and freckles has long been recognized.¹³

All of the hand lotion formulas in Chilson's Modern Cosmetics contain glycerin.¹⁵ Consider the importance of this in the light of the Department of Commerce's survey results on hand lotion use. Their survey indicated that seven out of every ten American women use a hand lotion. It also showed that hand lotion sales increased about five million dollars from 1943 to 1945.¹⁶

Referring again to Chilson we find that glycerin appears as an ingredient in his formulas for all-purpose face creams, hand creams, liquid creams, bleaching creams, mouth washes, tooth pastes, after shaving lotions, deodorants, depilatories, astringent lotions, sun tan lotions and creams, and hair tonics—almost the entire cosmetic field!¹⁵

"There is no doubt (however) that a great many lotions, creams, and compounds benefit the human skin and serve a very useful purpose in counteracting the injurious effects of make-up, as well as removing superfluous oil and dust difficult to eliminate by means of ordinary soap and water," states A. Hyatt Verrill.¹⁷ There is little doubt that glycerin's many properties are a vital factor in accomplishing these objectives.

One chemist has said, "When we're stumped, we always try glycerol. You'd be surprised how often it works."¹⁸

Truly, glycerin is versatile and valuable!

¹ Thomson, E. G., Ph.D., and Kemp, C. R., B.S., *Modern Soap Making*, New York, MacNair-Dorland Company, 1937, p. 289.

² *Encyclopaedia Britannica*, Fourteenth Edition, New York, Encyclopaedia Britannica, Inc., 1937, pp. 446, 448, 487.

³ *The Encyclopedia Americana*, New York, Americana Corporation, 1943, pp. 731, 732.

⁴ "The Use of Glycerine in the Manufacture of Ester Gums and Synthetic Resins," from *American Paint Journal*, May 23, 1938.

⁵ "Our Problem of Moisture Control and How Glycerine Helps Solve It," from *TOBACCO*, A Weekly Trade Review, III, 19 November 7, 1940.

⁶ *Using Glycerin In Flavors Other Than Vanilla*, the American Perfumer and Essential Oil Review, February, 1941.

⁷ "Glycerine Will Figure In Post-War Foods," Reprinted from *Pacific Coast Review*, November, 1943.

⁸ "Use of Glycerine in Tobacco Products," from *The Tobacco Leaf*, July 15, 22, and 29, 1939.

⁹ Lenth, C. W., "A new Vehicle for Vanilla," from *The American Perfumer and Essential Oil Review*, January, 1941.

¹⁰ "Glycerin In Food Color Preparations," from *The American Perfumer and Essential Oil Review*, April, 1941.

¹¹ "New Uses For Glycerine Provide More Flavorful Food," from *The American Perfumer and Essential Oil Review*, April, 1943.

¹² Goodman, Herman, B.S., M.D., *Cosmetic Dermatology*, New York, McGraw-Hill Publishing Co., 1936, pp. 51, 52.

¹³ Martin, Geoffrey, D.Sc., Ph.D., *The Modern Soap and Detergent Industry*, Vol. 3, The Manufacture of Glycerol, New York, D. Van Nostrand Company, 1926, Sect. IV, p. 14.

¹⁴ Stanislaus, I., V. Stanley and P. B. Meerbott, *American Soapmaker's Guide*, Third Edition, Henry Carey Baird & Co., New York, 1928, pp. 628-635.

¹⁵ Chilson, Francis, *Modern Cosmetics*, First Edition, New York, The Drug and Cosmetic Industry, 1934, pp. 85-305.

¹⁶ Hall, Marian Drake, "Skin Lotions are Important to Toiletries Industry Trade," from *Domestic Commerce*, April, 1947, pp. 26, 28.

¹⁷ Verrill, A. Hyatt, *Perfumes and Spices*, Boston, Mass., L. C. Page & Co., 1940, p. 179.

¹⁸ "Glycerol, Newer Developments and Possibilities," from *Chemical and Engineering News*, November 25, 1944.

* These articles were written by Georgia Leffingwell, Ph.D., individually or in collaboration with Milton A. Lesser, B.Sc. Reprints of these articles were kindly furnished by The Glycerine Producer's Association, New York.

News From Britain

There are interesting indications that Scottish toiletry and perfumery companies are again showing interest in the possibility of developing masculine lines. There has been a fairly strong trade in both home and export toiletries for many years, but manufacturers are convinced that only the surface of this business has been so far tapped. It is admitted that the process will demand a very definite adjustment in masculine thought but one argument advanced in favor of the possible development is the knowledge of practice abroad, experienced by

hundreds of thousands of Britishers during their war service. The makers agree that the introduction will require to be handled with definite care, since anything which smacks of femininity would obviously discourage a very large number of potential customers. The tremendous success achieved by men's toiletries in North America has undoubtedly encouraged this interest, and no doubt American technique will be followed to some extent. The introduction of such toiletries depends finally on the availability of packaging, materials and labor. Packaging is perhaps the most difficult. It is also fairly certain that any large scale development would involve increased supplying to the export market first. Attention is most likely in the field of colognes, lavender waters and lighter perfumeries.

The packaging situation is still a tremendous headache for manufacturers here and many new developments are being held up pending the availability of suitable packs. Manufacturers have indicated, for instance, that packs planned and ordered over a year ago are still not on the market, because of the scarcity of materials, of labor and of opportunity. This makes the planning of campaigns a most difficult matter and creates an atmosphere which demands a most philosophic outlook. No matter what efforts are adopted to hustle the availability of packs, the user and his supplier alike are up against a wall of restrictions, regulations, difficulties and controls which effectively hamper the speedy development of anything new. Most manufacturers have now survived the first spasms of anger and frustration and adopt instead a policy of persistent effort aimed at the overcoming of the difficulties which surround them. Some makers have been fortunate in possessing prewar stocks of bottles, and have successfully used these to launch new products. The import of French bottles dictated by the acknowledged attractiveness of these types is still permitted to a limited extent, although the majority of British manufacturers would prefer to buy bottles from home sources were these available. It is interesting to note here that even the French bottles appear to be less perfect than in prewar years.

It is even difficult to obtain the desired type of label, and instances have occurred where bottles are available, where the campaign has been launched and where lack of suitable labels has had the effect of nullifying all the other arrangements.

The independence of India and the development of additional manufacturing there is a possible loss to British companies. Some of the Scottish perfumery manufacturing concerns which have done business with India and the Far East for many years are now awaiting the development of the present situation. Since the end of the war there has been a marked increase in exports to this area but the market is now becoming somewhat saturated, if current reports can be relied upon. The market is a big one however and capable of considerable expansion, more particularly if the purchasing capacity of the local customer improves.

It is extremely difficult however to predict any future here while conditions remain so unsettled and while the clear pattern of national manufacturing trends has not been defined. There is an undoubted danger of loss or partial loss of the mass market which cannot be ignored.

JEAN MOWAT

Cosmetic Trends in the Mid-West

BY the time this is read buyers throughout this area will know definitely how the new pink tones are harmonizing with the sun-tans which are appearing. Women back from Easter vacations and post-Easter holidays at swank resorts are too tanned to even accept the pink tints. They want to retain that look of health. "Maybe we won't be the 'lovely ladies' the ads stress," said a buyer, "but I'm not sorry to see the dark colors holding their own," she said, "and tans are expensive to obtain this early in the year."

Complaints of slow business are registered all through the Middle West major stores. Some of the shops do a better business, but only because they are much closer to the customer. The sales person, usually an assistant buyer, serves her own clientele and learns what they like and don't like. In this way her report to the buyer is accurate and reflects a definite plan along which future purchases are made.

WHY IS BUSINESS SLOW

For every condition there is a cause and there must be a definite reason for the steady reports and the low morale of the average cosmetic buyer. March had weather throughout this area the like of which was not recorded for 51 years. Storms, rains, heavy snows, did not aid business. Then to add to the confusion some local stations announced that a heavy snow fall might continue for 24-hours and so in Chicago one day, just before Easter, one could bowl down the middle aisle and not hit a customer!

Back of all this are factors which are not concerned with weather. There were income taxes to pay—there were special Easter offerings that were Lenten-denials—and most of all there was FEAR . . . of so many things that a person may easily become bewildered if he lets this idea into his mind.

"Even the retailers feared—and so advertising was held to a minimum," was the analysis of a leader in St. Louis. Others in Chicago and the Twin Cities agreed. If a woman was not in a mood to buy, why use an ad? These men and women have not yet learned that today, one does offer a bargain—and also creates a desire to possess. This was true in pre-war days. Then the lush business made everyone indifferent and if the article requested was not under the sales person's hand, the potential customer was given a quick brush-off. Occasionally a buyer is aware of this and meetings are called to try to convince the girls that more effort in making a sale is needed if they want to make their bonus. But such an effort requires thought and to most people who merely wrapped an item and rung up a sale this is difficult work.

WHY SUMMER PINK?

At the moment of writing the trend news from this great area is that there is some interest in the pink theme. But the average buyer seen in several cities does not think it will carry through into Summer, unless women decide to be pastel all Summer. You can't put pink on a sun tan and come up looking fresh and new.

Pink for the delicate Winter complexions is a dream that would be exquisite against the dark clothes and furs, and maybe the industry is planning the early promotion as a feeler. One fact that is evident and interesting is that career girls will not accept this new combination of rouge, nail polish and powder. The college girls, in about half of the sales made, are accepting it. A check with several buyers indicated that the sale of pink ensembles to college and middle-agers was about equal, yet both were small in proportion to the best selling darker tones today. Two pinks stand out as important in this early presentation—Matchabelli and Dorothy Gray. Others may catch up with them but for the present these are leaders in volume.

SALES ARE BACK IN VOLUME

One important detriment to business for the past several weeks through this section has been the volume of half price sales which leading firms have made. Often it was to clear out the present goods to feature new lines, new packages, etc., but it did interfere with regular, normal selling and buyers have not been loath to discuss and comment on it. One store had eight major lines featured in sales—but these were so shown in the store with little newspaper information relative to them. On the other hand the drug chains and basement departments (these are now regarded as most important in today's selling due to price) have featured them with success. If it was merely an adjustment on stock, say buyers, the moving of high grade lines would be an aid to future regular prices but add to this the 2-for-1 sale and any manufacturer can understand what that does to a departmental figure.

NEW ITEMS ARE NEEDED

Probably the need for new items, as manufacturers visualize them, has been filled, if one listens to cosmetic buyers.

Glancing back over the years, the compact has taken a firm hold on milady's purse, whether she be seventeen or 70. Then came the lipstick, and both of these tumbled

about in the purse. Powder became loose and the top came off the stick! Some of these points have been well adjusted, and elimination of spilled powder is greatly lessened, and the tops of most sticks stay in place as designed. Then along came the idea of a purse dispenser for perfume. Today that is rambling about looking for a niche in the great pocketbook, or falling out in street-car, bus, train and church.

One day, some smart maker is going to offer a purse holder for these always-straying objects. The package itself will be important. Buyers in the Twin Cities, and especially those in St. Louis and Chicago are insisting more and more that better packages, more gift-like arrangements, must be offered. These buyers contend that a woman not only buys a smart package for a gift, but she indulges herself and finds beauty in the best looking packages. In fact, buyers state that some poor merchandise has been so beautifully packaged it outsold the best of similar items on the market.

PROMOTING THAT WHICH IS NEW

Probably it has been years since there was such an opportunity for promotion as now. Lines are complete. Allotments are over. New ideas are advanced and sold when promoted correctly. As evidence of this the Mid-West promotion of Desert Flower used in all major papers created interest and produced sales. Colognes have not been too active but this early presentation created a demand for this one fragrance which came as a surprise to many buyers.

Another idea which has had considerable impetus for business is the announcement, mailed to charge accounts that a small sample of a specific item will be given the customer presenting it. Several times the shipment of samples has been so small that the force of the promotional effort has been lost, because women came in several times and were informed these were not available, but more would come in . . . then later when these same women returned for the sample they were curtly informed that the presentation was only for two weeks. Someone is to blame for such a poor follow-up on an item, whether it is new or old for the maker had a desire to promote it and used specific smart shops and stores as his medium.

Pink promotions will have to be offered if this be a big Summer item (few buyers consider it so) and free samples might well be a way in which to bring this into focus. The average woman wants to look smart and will, if given some help. All want to look like lovely ladies—that are really ladies in mein and apparel.

PERFUMES FOR SALE

"The lush days of perfume selling are over," was the comment of a buyer who had found that her stock at \$50 a bottle was moving more slowly than ever recorded since the department was opened. Special announcements on lowered perfume prices offered by major stores in this area, especially on French goods, indicates the change in the franc and also the fact that domestic makes have a much stronger volume sale than was expected.

When only a few cases of imports were received, they moved rapidly, due to small quantities, and the fact that it had been years since such fragrances had been available. Part of this lowered price is due to more than the

devaluation of the franc: Women have become used to buying a dram of this fragrance, and that one, and several others, and suiting the fragrance to their mood. Today this type of selling is the perfume business. And, in contrast to a year ago, only a few of the top domestic lines are active in this dram sale such as Adrian, Hartnell, Guerlain, Caron. The combination package of Faberge is moving into more prominence than buyers expected.

In the perfume field most buyers expect that lines will be shortened, and the "war-babies" now struggling for a place in the sales' sun will pass out because of their lack of value and good packaging. Others, with proved good will and worth, gain in sales.

Colognes and perfumes had a slow first quarter but with the coming of warm nights and warmer days and the resumption of post-Easter entertaining, and the many Spring weddings, they have jumped up. Colognes, in smart fragrances, are the thing for the average woman's budget. Because of the high prices on essentials many buyers expect that cologne sales will far over reach those sales of other years, which were divided between perfume and cologne.

LOOKING INTO THE CRYSTAL BALL

Where business is reported slow, the buyer admits that little advance planning has been done. Many of these men and women have no ideas as to whether or not the customer is satisfied. "If a line sells we keep it, if not we discontinue," was the comment of a buyer for a specialty shop in St. Louis, who added: "We never ask for nor do we receive comments about the lines from our customers!"

The buyer for one of the largest stores in the Middle West, located in St. Louis, that draws a mail order business from the Dakotas to New Orleans and Mexico frankly stated that all lines offering color-nail, rouge and powder, were so long that it was impossible to stock them all and that a smart maker would shorten them to show a wide difference in the appearance of a rouge or



"That's the soap salesman who always makes our buyer foam at the mouth!"

polish to make a sale without a woman requiring a half hour to decide when it was but one step different in color. "All lines could be reduced to half a dozen shades, and lines should stagger them (not all come out with the same tints). The longer lip-sticks have a definite place in current sale," she added.

A number of smart stores in St. Louis stressed the importance of pink for immediate wear. A perfume sale over \$10 is slow but about equal to last year because of increased bulk sale. Stix-Baer & Fuller have a revolving display to accent its dram counter which is one of the busiest sections in the department. "A woman can buy a dram of each of several fragrances," said the buyer, "and enjoy them all and we find it a better selling idea than one sale of a large bottle for we get repeats. In this department a woman rarely buys just a fragrance but adds other items in cosmetics as well," he said.

We don't do crystal gazing regularly, but after a trip through several major cities there are facts which stand out like a sore thumb: A smart package sells. Undertakers are using pink—the new pink for nails and rouges.

Where the motif of youth is used there are treatment cream sales that create lines—a magic word is "hormone." Treatments have held up in all centers regardless of the

drop in certain items. Tablets are forging ahead because of a new package that continues to attract customers. Famous-Barr give accent to the right shade and in a recent Amber promotion detailed the smartness of this and found new sales' appeal.

Soaps at many stores in several cities—St. Louis, Milwaukee, St. Paul and Chicago—made the 1948 March quota easily.

A major traffic line for cosmetics is important. Scruggs-Vandervoort-Barney, Inc., has all its girls selling in all sections, regardless of the particular company they may be trained to represent. Perfumes are assembled with colognes for quick and easy selection. Goldblatt's has assembled everything for the hair, shampoos of all types, oils, unguents, etc., at one counter. There are rumors the popular creme shampoos are slipping, but there is no evidence to support it, at this writing.

Manufacturers of cosmetic lines who have trained personnel behind the counters need to snap their clerks into action. The reported brush-offs, and the slow business have a close relationship. In only a few stores must a girl sell other than in the section or the line she represents. These stores report sales equal to the planned quotas for the first quarter.

Notice to Our Readers

The vexations engendered by the work-stoppage at Chilton Press in Philadelphia continue with us. We ask your indulgence during this difficult time.

Esterification with Acid Anhydrides-Acid Chlorides

DR. KURT KULKA*

EITHER the acid halide, the alcohol or both may be subject to diluted, depending on their reactivity. Usually the acid chloride is added gradually to the cooled mixture of alcohol, tertiary base and inert solvent.

During the period of combining the reactants, a perfect agitation is necessary as we have to deal with conditions similar to those in the Schotten and Baumann reaction. The temperature down keeping during the reaction will be desirable in most cases. Time or careful warming up will favor the completion of the process.

ACYLATION OF SUGARS

Emil Fischer and K. Freudenberg⁴² were able to benzoylate sugars completely when using benzoyl chloride and quinoline.

Kuenz⁴³ in applying the Schotten and Baumann reaction obtained a mixture of partly benzoylated structure.

ESTERS OF P-TOLUENESULFONIC ACID

Ferns and Lapworth⁴⁴ report about difficulties they encountered in the preparation of ethyl and benzyl esters of sulfonic acids because these esters combined readily with pyridine to give the water soluble quaternary ammonium salts.

Sekera and Marvel,⁴⁵ when working at 0 deg., could prevent this side reaction.

n-butyl-p-toluenesulfonate in a yield of 86 per cent was obtained in the following manner:

14.8 g. n-butyl alcohol, and 41.9 g. p-toluenesulfonyl chloride were cooled to 0 deg. and under agitation an amount of 31.6 g. pyridine added over a period of 3 hours.

Higher alkyl p-toluenesulfonates could be obtained in a yield of 60-80 per cent by adding slowly 1.1 mol. equivalent of the respective pure sulfonyl chloride to a cooled mixture of 1 mol. equivalent of the respective alcohol and 4 mol. equivalent of pyridine. The reaction mixture was agitation for an additional 3 hours to insure completion.

ESTERS OF TERTIARY ALCOHOLS

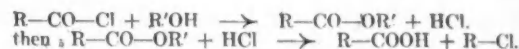
Tertiary butyl acetate in a yield of 98 per cent was

prepared by Norris and Rigby⁴⁶ when tertiary butyl alcohol, acetyl chloride and dimethylaniline in molecular proportions were permitted to react.

In absence of a tertiary base and by heating for 10 minutes, 50 per cent ester and 50 per cent alkyl chloride were obtained.

When the temperature was kept at 20 deg. the theoretical amount of the respective alkyl chloride was obtained.

These experiments led to the conclusion that the ester is the primary reaction product from an alcohol and an acyl chloride. Thereafter the ester is liable to react with the evolved HCl. and is converted into the alkyl chloride, according to:



APPLICATION OF TERTIARY BASE

The application of a tertiary base, however, prevents the breaking up of the ester to a considerable extent.

The preparation of esters of different tertiary alcohols is described.⁴² The method applied is an adaption of that of Norris and Rigby.

Tertiary butyl acetate was obtained in a yield of 63-68 per cent when 1.5 mol. of tertiary butyl alcohol, 1.67 mol. diethylaniline and 200 cc. ether were heated under agitation to reflux, then the source of heat removed and to this mixture 1.58 mol. of acetyl chloride added at such a rate that the reaction maintained a moderate reflux by itself.

Ice-cooling had to be applied, as soon as the diethylaniline-HCl. addition compound started to crystallize (after about 2/3 of the acid chloride were added). The reaction was completed after final heating for 1 hour.

Esters of other tertiary alcohols, prepared in a somewhat similar way, yielded:

61.4	per cent tertiary butyl propionate
71	per cent tertiary butyl isobutyrate
26	per cent tertiary butyl isovalerate
58	per cent tertiary butyl cinnamate
63	per cent tertiary butyl chloroacetate.

OTHER SENSITIVE ALCOHOLS

The esterification of terpene alcohols is a delicate operation. Geraniol, for example, is extremely sensitive to even small amounts of sulphuric acid, which at ele-

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This article is continued from the March issue of THE AMERICAN PERFUMER.

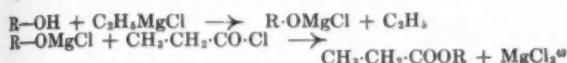
vated temperatures are sufficient to convert this alcohol into terpineol.

According to S. P. Schotz,⁴⁸ geranyl benzoate is prepared by mixing together: 3 parts of geraniol and 1½ parts of pyridine. Under cooling and agitation 2½ parts of benzoyl chloride are gradually added. The mixture is permitted to stand for several hours at room temperature in order to complete the reaction.

Linalyl acetate according to Sornet "Perfumes Synthétiques" is prepared by mixing together 6 parts of linaloe-oil with 4 parts of pyridine or another tertiary base. Three parts of acetyl chloride are gradually added under agitation and at a temperature around 0 deg. After standing for 12 hours at room temperature the pyridine-HCl compound is removed, the reaction product washed with water, separated, dried and worked up.

ESTERIFICATION WITH MAGNESIUM HALIDES

Another way of obtaining esters of tertiary and sensitive alcohols and esters in general is by treating the alcohol or phenol with a methyl or ethyl-magnesium halide which on reaction with the acid chloride yields the respective ester according to:



ESTERIFICATION WITH PHOSGENE

Phosgene $COCl_2$ the chloride of carbonic acid, plays an unique role in esterification as it paves the only way to obtain esters of this acid.

When chloroformates are desired, only one of the two replaceable chlorine ions are exchanged by an alkyl group; when carbonates are the desired product both chlorine ions are replaced by the same or two different alkyl groups. Based on the fact that only one chlorine ion of the phosgene molecule reacts readily and fast whereas the other sluggishly, the preparation of chloroformates, according to:



is easily accomplished by leading a stream of phosgene into the respective alcohol.

As phosgene changes at about 0 deg. to a liquid, the best working conditions for this operation are around this temperature. Phosgene boils at 8 deg. and therefore by careful warming up to about this temperature, the excess (unreacted part) can be removed from the reaction mixture under proper conditions.

PREPARATION OF CARBONATES

After the mono-ester (chloroformate) is formed, the other alcohol is added. To obtain good yields, it will be found advisable to use an excess of this reactant. The mixture is first cooled and under thorough agitation and temperature control, pyridine or another tertiary base is added slowly, catalyzing the process and serving as a binding agent for the liberated HCl. To complete the reaction gentle heat is applied.

Guajacol carbonate $(CH_3O.C_6H_4.O)_2CO$ and other symmetric diaryl esters of phenols are conveniently pre-

pared by reacting phenol salts (for instance, sodium phenolate) with phosgene.

If desired, phosgene dissolved in toluene or another inert solvent can be applied.

ACYLATION OF PHENOLS

Phosgene reacts with acetic acid in presence of pyridine even under cooling, to give acetyl chloride. This fact can be utilized for the acetylation or other types of acylation of phenols.

According to Einhorn and Holland, a phenol and the pyridine salt of the respective acid are mixed together and enough pyridine is added to facilitate solution. To the cooled mixture the molecular proportion of phosgene or phosgene dissolved in toluene is gradually added. After the reaction is completed, the reaction mass is slowly poured into diluted sulphuric acid, whereafter the acylated phenol settles out.

Acylated *b*-naphthols, acetyl and formyl eugenol are examples which were prepared this way.

Acid chlorides react with sodium or potassium alcoholates according to:



An inert solvent will be favorably used; cooling, agitation and slow combination of the reactants should be cared for.

Drake and Carter⁵⁰ observed that when methylcellosolve or carbitol were reacted with phosgene, the evolved HCl reacted with the ether group, yielding as by-products some alkyl chloride and other halogen containing compounds.

To circumvent these side-reactions the sodium alcoholate of the glycol ether was produced and this compound reacted with phosgene (which was dissolved in benzol).

In contrast to alcoholates, many phenolates, especially the metallic salts of monohydroxy phenols, are easily prepared and their reaction with acid halides is an often favored procedure.

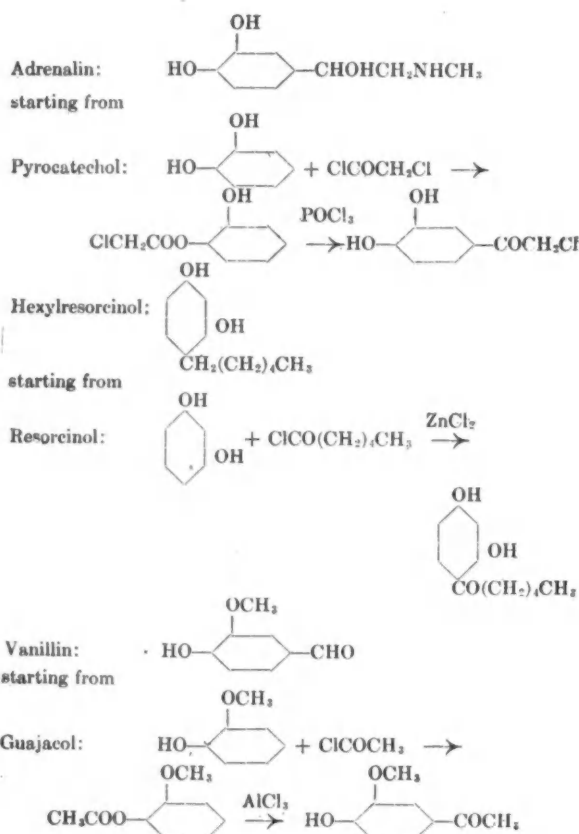
PHENYL ESTERS

Phenyl esters can be furthermore conveniently prepared by the interaction of acid halides on phenols, omitting a basic reacting chemical. In this case the liberated halogen acid is allowed to escape or is led into a proper trap.

In polyhydric phenols, one or more of the available hydroxyl groups can be acylated by using the theoretical amount of the acylation agent under controlled thermal conditions.

Catalysts are sometimes applied, for instance: sulphuric acid, sodium acetate, etc. Inert solvents as benzol, nitrobenzol, etc., furthermore in acetylation acetic can be used.

In connection with this type of esterification the possibility of phenol esters to rearrange to aromatic hydroxy ketones has to be mentioned. In this reaction which is known as the Fries-migration, aluminum chloride or zinc chloride are the commonly used condensing agents. In the case of adrenalin, phosphorus oxychloride was recommended by Ott⁵¹. The Fries reaction permits the synthesis of many important chemicals as for example:



In practice it is not necessary to prepare the esters first and then to convert them by means of the Fries migration to the respective hydroxyphenyl ketones.

When the phenol is reacted with the acid chloride in the presence of the respective condensing agent, the hydroxyphenyl ketone is prepared in one step.

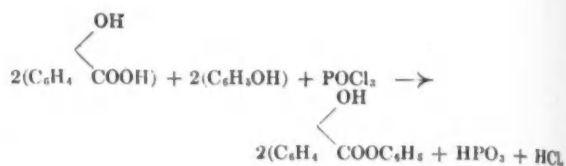
In recent years considerable attention was given to phosphoric esters because of diversified purposes for which they serve. They are derived from phosphorous oxychloride. The three replaceable chlorines of this halide can be reacted with the same or different hydroxyl compounds making a great variety of new products possible.

Phosphoric esters of carbohydrates command much interest because of their biological value. A number of phosphates of this kind have been synthesized by reacting a partly substituted carbohydrate with phosphorous oxychloride in the presence of pyridine, another tertiary base or aqueous alkali. Noller and Dutton⁵² use pyridine in the preparation of trialkyl phosphates which they recommend as alkylation agents.

Triphenyl-phosphate ($\text{C}_6\text{H}_5\text{O})_3\text{PO}$ and similar products are widely applied as plasticising materials.

Nencki⁵³ made the important discovery that in the presence of phosphorous oxychloride, phenols react with acids to give the respective esters. The preparation of the phenyl ester of benzoic acid was described by Rasinsky.⁵⁴ He fused 11 g. benzoic acid with 10 g. phenol and added gradually 12.8 g. phosphorous oxychloride keeping the temperature between 106-120 deg.

Important is this method for the preparation of "Salol" the phenylester of salicylic acid, proceeding according to:



Seifert⁵⁵ prepared this valuable product in the following way: 28 parts of phosphorous oxychloride were added to a mixture of 64 parts of salicylic acid and 48 parts of phenol at a temperature of 120-125 deg. During the reaction, probably the phenyl ester of phosphoric acid is formed first, which under the influence of the HCl is converted into the ester of the carbonic acid.

Phosphorous pentachloride or phosphorous trichloride can be used instead of phosphorous oxychloride and the free acid may be replaced by one of its dry salts.

THE USE OF CRUDE ACID HALIDES

It is not always necessary to use purified halides. From an economical point of view it might be advisable, in many cases, to use crude components and to purify the final product. The acid halide can be prepared by the interaction of chlorinating agents—for example, thionyl chloride—on the acid.

The crude halide is added under cooling and agitation to the alcohol. The evolved halogen acid might be permitted to escape when no side reactions with the reaction components are assumed. The reaction can be speeded up finally by heat.

CONCLUSION

There is hope that in the preceding lines most of the important dates are collected, governing the preparation of esters with acid anhydrides and acid halides.

(The author wishes to acknowledge his indebtedness to Dr. Herman Wachs, Research Director of Dodge & Olcott, Inc., for his numerous suggestions and encouragement, and also to Mr. Oscar Herbst, Technical Supervisor at the Bayonne, N.J. plant of Dodge & Olcott, Inc., for his help during the preparation of this paper.)

⁵² B. 45, 2724, 1912.

⁵³ Z. Physiol. Chemie 14, 333.

⁵⁴ J. Chem. Soc. 89, 332, 1906.

⁵⁵ Chem. Soc. 55/345, 1933.

⁵⁶ J. Am. Chem. Soc. 54, 2088.

⁵⁷ Organic Syntheses Vol. 24, 19.

⁵⁸ Organic Compounds, Ernest Benn Ltd., London, 1925.

⁵⁹ Houben, B. 39, 1736.

⁶⁰ J. Am. Chem. Soc. 52, 3720.

⁶¹ B. 59, 1068.

⁶² J. Am. Chem. Soc. 55, 424.

⁶³ J. pr. (2) 25, 282.

⁶⁴ J. pr. (2) 26, 62.

Oil of Bois de Rose Imports

Arrivals of oil of bois de rose in the United States from Brazil during the first 11 months of 1947 amounted to 400,756 pounds, valued at \$1,247,147. In the entire year 1946, such arrivals amounted to 484,804 pounds, valued at \$1,971,336. (U.S. official statistics.)

Odor Through Radiation

MARJORIE VAN DE WATER

THE perfume of new-mown hay, the fresh tang of the air after a thunderstorm, the disgusting smell of a passing garbage truck—these have been mysteries of science.

How does your nose know? How does your brain get its signals of sweetness or foulness of smell? This is something that wise men and philosophers have struggled with and argued about through the ages.

Newton with his glass prism solved the mystery of the constitution of light. A beam of pure white light was spread into the rainbow of the spectrum. Absorb all but one frequency band of the vibrations called light and you have left a colored light, signaling in brilliance its part of the whole complete whiteness.

And now a couple of hundred years later odor yields up its secrets. Odor, all the olfactory world, is proved to have its spectrum, its rainbow, its absorption and its fundamental dependence upon solid physical phenomena.

The Newtons of odor are two psychologists from Yale University, who have gone to the bees and the cockroaches for their fundamental knowledge. Dr. Walter R. Miles and Dr. Lloyd H. Beck are experimental psychologists who have found that your nose can smell, just as your eyes can see, because of radiant energy.

IN REVERSE

The process, however, is in reverse. You see because light energy given off by the sun reaches your eyes. You have a sense of smell, on the contrary, because radiant energy is given off by the smell organ in your nose and is absorbed by the vapors of fresh-pressed cider, the pine woods, roasting coffee, decaying fish, or any other odorous substances.

Just as Newton had his Galileo, so Dr. Beck built his scientific theory of the sense of smell on the sound basis of earlier work in the field. Faraday and Tyndale had studied—but only as a matter of incidental interest—the total infrared absorption of a few odorous substances. Ramsay advanced a theory of molecular vibration as accounting for odors. But these scientists assumed, as did Fabre, Ogle and others, that it is the odorous material that gives out the radiation. Although several radiation theories had been proposed, they had only arbitrary reasons for emphasizing regions of the extensive electromagnetic spectrum; Heyninx chose the ultraviolet, Ramsay the far infrared, Dyson the Raman shifts. But the difficulty with all these ideas is that the human body is

a good radiator in only one region of the spectrum—that from eight to 14 microns. There it is excellent.

Dr. Beck reasoned that it is the nose that gives off the radiation and the odorous substance that picks it up, and that it is the 8-14 band that is important. Then he and Dr. Miles set up experiments to test this revolutionary idea.

The tiny receptors in your nose that enable you to smell are hair-like antennae that broadcast infrared radiation—heat waves. The wavelengths, like the antennae that send them out range from something like eight microns to 14 microns in size. That is, the largest are only about half the size of the finest hair on a blonde's head.

ODOROUS SUBSTANCES

Fitting in with Dr. Beck's theory are the many facts that are known about the physics and chemistry of odorous substances.

Oxygen, the gas that you inhale with every breath because it is so plentiful in the air, is odorless. Why? Because, although it reaches your nose in abundance, it cannot pick up rays of the special smell wavelength. On the other hand, another form of oxygen, ozone (O_3), does absorb them. Ozone has that refreshing odor that you notice in the air after a thundershower or near ultraviolet light.

Dr. Beck and Dr. Miles are now working on the preparation of a "rainbow" of smell—the infrared absorption bands for various odors. From the preliminary work already done on this, Dr. Beck believes that they will find that the perfumes and pleasant odors are grouped in the middle of the smell rainbow in a region comparable to that of yellow on the color rainbow. At the short end, where the blues and violets are in color, he expects to find the acid smells. Among the longer wavelengths, the "red" end, will probably be grouped those disagreeable odors known scientifically as "goat-like."

"WHITE SMELL"

There is, Dr. Miles explained, a "white smell" comparable to "white light" which is a combination of all colors and therefore affects all the vision sense cells. "White smell" is that burnt or "fresh" smell that you notice occasionally when sniffing very cold air outdoors in winter. It doesn't smell anything like that other burnt smell of a candle or soot.

Dr. Beck's theory would also explain why it is that the fresh perfume of a garden in springtime is so different from the stench of a battlefield and how it is possible to detect the subtle difference in scent between one flower and another.

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If the bundles of antennæ that make up your sense organ of smell are each of a different size and shape and each broadcasting on a distinctive wavelength, then each different odor might bring into action a separate antenna or group of them, giving the brain its own special signal.

HEAT LOSS

As your nose gives off radiation, Dr. Beck reasoned, your brain senses the sudden loss of heat energy and as the heat is lost, the nose keeps on putting out more and more. What your brain really notes, then, is heat loss of a particular wavelength from the smell receptors. But that sensation may be interpreted directly as the fragrance of your best girl's favorite perfume or the appetizing odor of broiling beefsteak.

This is comparable to the way you feel cold. If you put your hand on a cake of ice, of course it feels cold. But the ice is not giving off cold. What actually happens is that the ice absorbs the heat being radiated by your hand. You feel this quick loss of heat from your hand through certain nerve endings in the skin, and your brain interprets this as "cold."

If the loss of heat is not from your hand but from the tiny hair-like organs of smell in your head, your brain telegraphs "perfume" instead of "cold."

Now scientists have a better explanation of why you can smell some things and why others appear odorless. They have ways of explaining, too, why the same material may seem spicy or fragrant at one time and flat or odorless at another.

In the first place, the material smelled must be colder than your nose. Remember the delightful perfume that assails your nostrils when a florist opens the door of his refrigerator? Remember how sweet your garden is in the early morning while the dew is on the flowers or in the evening when the earth is cooling off? The moisture of the dew is cooling and accents the flowers' perfume by absorbing more of the radiation from your nose.

Incidentally, your nose itself helps to cool the air that carries the perfume to your nostrils. Even if it is hot when it enters your nose, it cools in passing up the column of air inside.

Under what circumstances can you smell an ordinarily odorless substance? This is a scientific riddle for which Dr. Beck is predicting that they will find the answer. Cold hydrogen, he thinks, when blasted up the nose should smell strongly burnt. He is also searching for an answer to the question as to whether chemical compounds differing only in constituent isotopes have the same odor. Is heavy methane, for example, as odorless as ordinary methane?

DOG'S NOSE

A dog's nose is better than a human nose for smelling, these psychologists explain, for several reasons. In the first place, it is cold at the tip. Then, too, it is moist, and the evaporation of the moisture serves to cool the odorous substance as it passes through the dog's nostrils. Finally, the cavity containing the odor sense cells of the dog is larger. This means less odor material is required than for man.

Until this theory was announced to scientists at the meeting of the National Academy of Sciences in Washington, there was no good way to describe an odor accurately

in physical terms. You can say that a geranium smells more like a marigold than like a violet, but no one could ever identify a geranium just from that description, and there might be a lot of disagreement with it by those who know the smell of that flower.

Now it may be possible to describe odors in terms of infrared wavelengths and arrange typical odors on a scale.

Dr. Miles and Dr. Beck tested their theory with insects. These little creatures fortunately wear their smelling apparatus on the outside in their long, waving antennæ. Thus, they are smellers as much as "feelers," and when they note an odor they wave their antennæ as if they were excited. This makes it possible for the psychologist to watch and even measure roughly their response to various odors.

EXPERIMENTS ON BEES

One group of experiments was made on bees. They were first attracted to the location of the experiment by a dish of honey. This was just to be sure that the bees had an interest in what was going on. Then the dish was removed and the experiment started. More honey had been placed in the bottom of two iron boxes and sealed in tight. But each box had a tightly closed window made of thallium bromo-iodide, a heavy material of a beautiful red color made by the Army especially as a filter to pass infrared radiation. The two windows looked exactly alike from the outside, but behind one of them was a pane of ordinary glass that cuts off completely the infrared rays involved.

SMELLED HONEY

Now the question was would the bees still smell the honey inside the box in spite of the fact that no chemical vapor or gas could possibly escape from the box? Apparently they did, for soon they were nearly all clustered around the window that let the infrared rays through and only a few if any remained on the window that cut off the radiation. Up to ten times as many preferred the infrared passing window. In each of the iron boxes, the air and the gas from the honey were cooled so that radiation from the bees might more readily enter.

In another experiment roaches were used. On the basis of this theory Dr. Beck predicted that these insects would act as if they smelled even when no vapor from the odorous material could come in contact with their smell organs. Large American roaches were put in a wire cage at each end of which were airtight jars which were equipped with windows made of infrared-passing potassium bromide crystal.

RESPONSE TO ODOR

The experimenters watched for the waving of the antennæ as a sign of response to odor. When only air was forced through the air-tight jars behind the crystal windows, 15 per cent of the roaches moved their antennæ. When oil of cloves was passed through the chambers—completely closed off from the insects—24 per cent had active antennæ. And when the scent was released in the room so that it came in direct contact with the roaches, 26 per cent responded.

Other experiments are now in progress on man and lower animals.

Book Review

THE ESSENTIAL OILS, Vol. I by Ernest Guenther, Ph.D. 488 pages, illustrated and indexed, cloth, 6x9 inches. D. Van Nostrand Co., 1948, price \$6.00.

Every English speaking chemist or buyer of essential oils has felt the need for a modern English reference on essential oils. *Allens Commercial Analysis* is an attempt along this line but it is not complete enough. Other books like those by Parry and Finemore are out-dated. Gildemeister & Hoffman in part is out-dated; in addition, the latest edition is published in German. So, the opportunity for a publication on essential oils, in English is ripe. It will be generally admitted that no one was more qualified to write this mammoth opus than the well known Dr. Ernest Guenther, whose articles on essential oils number into the hundreds.

This volume is one of a series. It is divided into four chapters. The first, dealing with the origin and development of the essential oil industry, is written by George Urdang, who is a recognized expert. Chapter 2 is written by A. J. Haagen-Smit who discusses the chemistry, origin and function of essential oils in plant life. Chapter 3 written by Dr. Guenther, reviews the production of essential oils in its numerous phases as these apply to straight essential oils, and to natural flower oils. Edward Langenau writes Chapter 4 on the examination and analysis of essential oils, synthetics and isolates.

Those who know Dr. Guenther know what a stickler he is for detail. They also know his natural flair for writing. Both are combined to produce an entertainingly interesting documentation of the essential oils. All this is reflected in the material written by the contributing authors.

ORIGIN AND DEVELOPMENT OF THE INDUSTRY

There is no question that Chapter 1 written by Dr. Urdang overhauls the subject and brings it up to date. As the years go by, more background is available. Since background affects every science, one can see how essential this chapter becomes. The author develops the origins of the industry by starting about 500 B.C. However, the first authentic distillation of true essential oils did not occur until about the thirteenth century, the exact date being in doubt. Subsequent progress is reviewed through to modern times. Many valuable references are cited.

ESSENTIAL OILS IN PLANT LIFE

In unfolding his chapter, Dr. Haagen-Smit touches lightly on the distillation of Farina Cologne in 1725, then moves straight forward into the composition of the essential oils themselves. While the list of all known components of essential oils would be an unduly long one, the author ably divides the main constituents into four large groups, 1) terpenes, 2) straight chain compounds, 3) benzene derivatives and 4) miscellaneous. Representative of the last group are compounds like allyl isothiocyanate, indole and methyl anthranillate. The author concludes that the structural formula of a large number of the compounds in volatile plant oils can be divided into branched C_6 chains. The author com-

pletes his study with a discussion of the relationship of the essential oils with the vital processes in plants and the evolution of plant families.

PRODUCTION OF ESSENTIAL OILS

Few people have had the opportunity to watch and study the distillation process as practiced by the nations of the world as has Dr. Guenther. This wide experience is covered in a chapter of 187 pages, a little over a third of the whole book. Essential oil distillation, flower oil extraction and terpeneless oils are discussed. While it is true that distillation was practiced and studied by the "old world" long before it was practiced here, nevertheless some study has been devoted to it in the Western Hemisphere, in part by staff members of our own Experiment Stations of the Department of Agriculture. No reference is made to this work although European literature is generously referred to. Perhaps there is nothing fundamentally new in the American writings, but they do show some ideas which have been successful in the distillation of certain oils. The other volumes of this series may cover these points.

EXAMINATION AND ANALYSIS

Edward E. Langenau no doubt gives his readers the benefit of the many practical experiences he has had in the analysis of aromatics and essential oils. Because he is so close to the problem Mr. Langenau occasionally lacks the articulation required in describing some tests. Thus on page 250, discussing solubility of essential oils in diluted alcohol he states "introduce exactly 1 cc of the oil. . . . add slowly . . . alcohol of proper strength . . . record the . . . number of volumes . . . etc." Every one versed in essential oil testing knows what he means. But the newcomer is confused by the switch from cc to volumes, even though the author's form is usual and correct. The discussion appears quite up to date to the point of including the Karl Fischer method of determining water. The only point that might have been included is a comparative study of the Schimmel Test and the London Tests for Citronella Oil adulteration.

This reviewer takes the liberty to suggest two very minor changes in subsequent editions. The first is to use the American Chemical Society system of nomenclature in references, giving the volume, number, page and year in that order, instead of giving the page number after the year. Another change might be to use official National Bureau of Standards abbreviations for the metric system as given in U.S. Dept. Commerce Misc. Publication No. 135 (1932) instead of a system part N.B.S. and part U.S.P.&N.F. These are trivia and in no way detract from the authority and scope of the book.

The author and the company he works for are to be complimented for giving so liberally of their time and "know-how" for the benefit of the aromatic and essential oil industry as a whole. The book shows no typographical errors. The style is excellent. The grammar is good. The illustrations clear. The presentation is easy to follow. Beyond a doubt, Guenther's "The Essential Oils" will become the bible of the essential oil trade in the years to come as Gildemeister and Hoffman were of the last two generations. Bravo! Guenther and collaborators.

Every well-posted cosmetic, essential oil and aromatics chemist will want this volume and succeeding volumes in his library.

Packaging

P O R T F O L I O

HERB FARM SHOP



HERB FARM SHOP: Herb Farm Shop's "Queen's Ransom" harbors perfume and toilet water in a chest which comes in black, green, brown or clear plastic. The bottles are tall and capacious with leak-proof lucite "Queen's Crown" top.

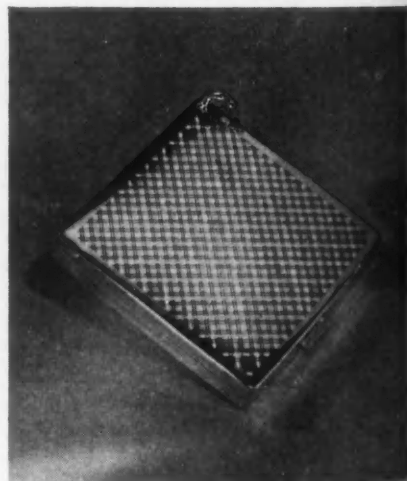
SEAFORTH: Seaforth's gift set features shaving lotion, hairdressing and men's talc in unbreakable Duralite containers. The package wrap is simulated alligator in three different colors, maroon, brown or forest green.

SEAFORTH



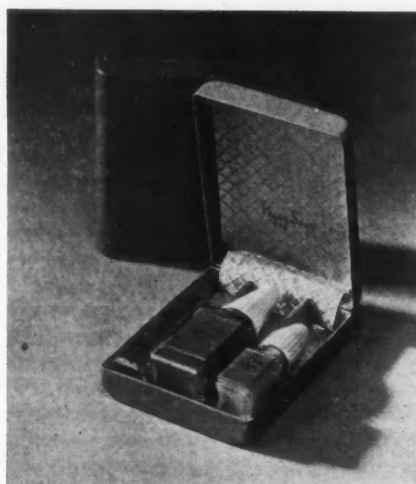
HARRIET HUBBARD AYER: Harriet Hubbard Ayer's new golden color black and white plaid compact has the winking note of a highland jewel. The compact is wafer thin.

HARRIET HUBBARD AYER



PEGGY SAGE

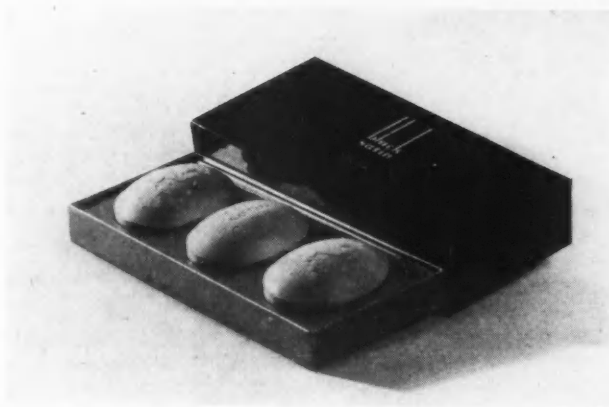
PEGGY SAGE: Peggy Sage's good looking light-weight metal case is hinged and artfully covered with eye-appealing simulated leather. It is fitted with Shimmer Lipstick, matching polish and miniature bottle of Satinbase. "Modiste" can be used as a handy case for jewelry.



ANGELIQUE: A new Black Satin bath soap, scented with Black Satin perfume is announced by Angelique and is beautifully packaged in Black Satin's traditional black and gold box.

ANGELIQUE

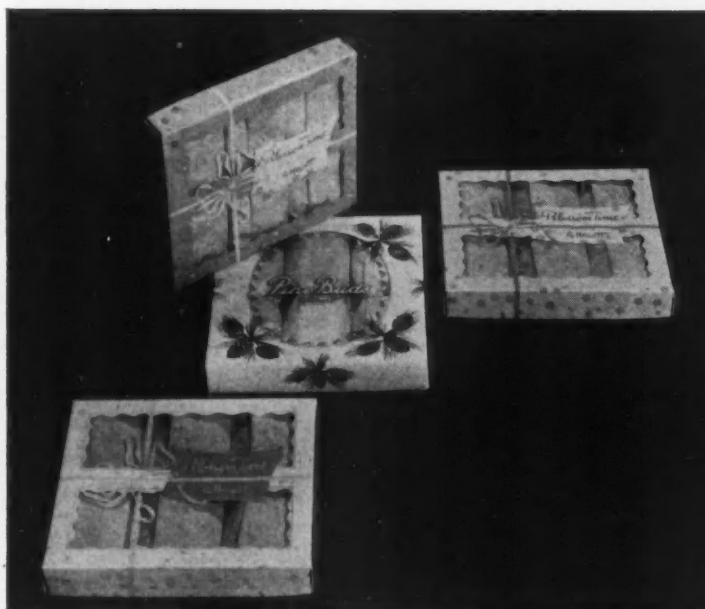
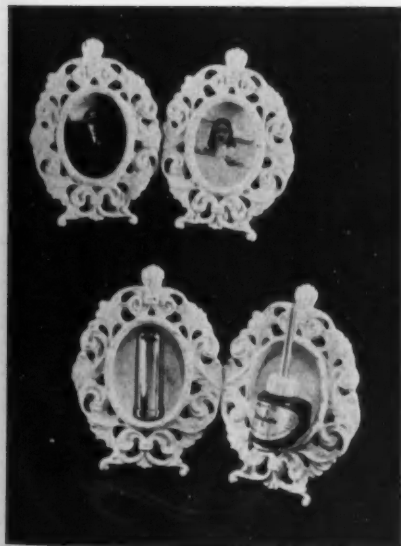
HEWITT: The delicate pastel colors used on the Hewitt Toilet Soap boxtops give the packages special appeal. The soap bars have carefully carved designs of rose buds.



LA CROSS: Nylon nail enamel and matching lipstick come sitting pretty-as-a-picture in a little double picture frame. The frames are milk-white plastic, hinged together, with an easel that supports them, and may actually be used for pictures.

HEWITT

LA CROSS



FLAVORS

Aromatic and Terpene Formates

MORRIS B. JACOBS, Ph.D.*

SOME of us are accustomed to thinking that the formate esters, particularly the terpene and aromatic formate esters, are "new" flavoring materials. It is interesting then to note that there are compositions detailed in the literature in the 1890's listing linalyl formate as a major component of certain artificial fruit ester mixtures. In the intervening years it is probable that the aliphatic formate esters achieved greater utilization than the terpene and aromatic formates. These, the reader will recall, are the three groups into which we can conveniently place the formate esters.

It may be noted by reference to the aforementioned article that most of the aliphatic formates are carriers of a plum flavor. While some of the terpene formates also have a plum aroma, all of them carry a floral note which is a principal attribute of this group. The aromatic formates have not had the widespread use given the aromatic acetates.

AROMATIC FORMATES

Benzyl formate, $\text{HCOOCH}_2\text{C}_6\text{H}_5$, is a colorless liquid with a specific gravity of 1.083. It boils under reduced pressure at 84 deg. C. at 10 mm. Hg and at normal pressure at 203 deg. C. It is soluble in 95 per cent alcohol but is not particularly soluble in aqueous alcohol mixtures for 30 volumes of 45 per cent alcohol are required to dissolve one volume of benzyl formate. This ester has a cinnamon-like odor with a jasmine note and is said to have a pineapple-apricot flavor and a sweet taste. Be-

cause of these flavor qualities, it has been suggested for incorporation into fruit formulations like apple, apricot, cherry, pineapple, quince, peach, plum and prune. Its concentration in any given composition should not exceed 2 per cent, otherwise it will not be possible to blend it adequately.

Phenethyl formate, or as it is more commonly called, phenylethyl formate, $\text{HCOOCH}_2\text{CH}_2\text{C}_6\text{H}_5$, is a liquid which has a specific gravity of 1.054-1.060 and a boiling point at 221 deg. C. This ester is soluble in 95 per cent alcohol and is less soluble in aqueous-alcohol mixtures. Phenethyl formate has a plum flavor, a rose and chrysanthemum odor, and a bitter-sweet taste. There are few formulations in the literature in which this compound is mentioned. Among those which carry it are plum, prune, and cherry flavors.

Hydrocinnamyl formate, which is also termed, phenylpropyl formate, $\text{HCOOCH}_2\text{CH}_2\text{CH}_2\text{C}_6\text{H}_5$, has had only limited application in the compounding of flavors but since it has an odor resembling both the hyacinth odor of cinnamyl alcohol and a honey-like character, it has been suggested for incorporation into honey-type ester flavor mixtures.

Cinnamyl formate is a liquid which has a specific gravity of about 1.086 and boils in the range 250-254 deg. C. This ester is soluble in alcohol. It has an apple flavor, a bitter-sweet but rather harsh taste, and a pronounced cinnamon odor that limits its applicability to but a few fruit flavors like pear and apple.

TERPENE FORMATES

Following the pattern used in analogous articles in the past the physical properties and utilization of citronellyl,

* Adjunct Professor, Chemical Engineering, Polytechnic Institute of Brooklyn.



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Rhodinyl, geranyl, linalyl, neryl, terpinyl, and bornyl formates will be discussed.

Citronellyl formate, $\text{HCOOC}_{10}\text{H}_{19}$, is a liquid with a specific gravity of 0.892. It boils under reduced pressure at 97-100 deg. C. at 10 mm. Hg., and has a refractive index of 1.450-1.453. The ester is soluble in alcohol, one volume dissolving in 2.5 volumes of 80 per cent and in 12.5 volumes of 70 per cent alcohol. Citronellyl formate has a plum flavor, a bergamot-rose odor, and a sweet taste. It has been proposed as a component of plum and honey compositions.

Rhodinyl formate is a liquid with a specific gravity of about 0.93. It is a mixture of formates since it is made from Rhodinol which is itself a mixture. About one volume of this ester is soluble in 10 volumes of 70 per cent alcohol. It has a cherry aroma, a pronounced rose odor, and a bitter-sweet taste. Among the formulations in which it is listed as a component are almond, apricot, cherry, plum, pineapple, and peach.

Geranyl formate, $\text{HCOOC}_{10}\text{H}_{17}$, is a colorless liquid which boils at 113-114 deg. C. at 15 mm. Hg and at 229 deg. C. at 760 mm. It has a specific gravity of 0.927 and a refractive index of 1.451-1.460. About 1 volume of the ester is soluble in 10 volumes of 70 per cent alcohol. It is much more soluble in 95 per cent alcohol and is insoluble in water. Geranyl formate has a berry flavor, a distinct bergamot-rose odor, and a bitter taste. It is used in apricot, currant, peach, strawberry, and raspberry flavor ester mixtures.

Linalyl formate, $\text{HCOOC}_{10}\text{H}_{17}$, is a liquid which boils at about 192 deg. C. and has a density of 0.919-0.921. The ester is soluble in alcohol, is much less soluble in alcohol-water mixtures, thus 1 volume of the ester is soluble in 55 volumes of 70 per cent alcohol, and it is insoluble in water. As mentioned above this ester was one of the first esters used in flavor formulations. It has a red rose odor. Linalyl formate has been used in apricot, apple, pineapple, and peach compositions.

Neryl formate, $\text{HCOOC}_{10}\text{H}_{17}$, is an isomer of the esters described above. It has a peach flavor, a bitter taste, and as the others a rose odor. It has been suggested for incorporation in similar fruit essences, namely, pineapple, apple, apricot, and peach.

Terpinyl formate, $\text{HCOOC}_{10}\text{H}_{17}$, is a liquid with a specific gravity of 0.983. It boils under reduced pressure at 133-138 deg. C. at 40 mm. Hg. The ester is soluble in alcohol, one volume dissolving in 11 of 70 per cent alcohol, and it is insoluble in water. Terpinyl formate, as well as geranyl formate and linalyl formate, was well known many years ago. It too has a berry flavor and a bitter taste, but its odor is on the leafy side.

Bornyl formate, $\text{HCOOC}_{10}\text{H}_{17}$, is a colorless liquid with a specific gravity of 1.012-1.013. It boils under reduced pressure at 85-86 deg. C. at 7 mm. Hg. Its solubility is analogous to the esters noted above. Bornyl formate is optically active. It is used for purposes similar to those of bornyl acetate.

OTHER FORMATES

Anisyl formate, $\text{HCOOCH}_2\text{C}_6\text{H}_4\text{OCH}_3$, which is also known as *p*-methoxybenzyl formate, might very well have been considered with the aromatic formates. Because, however, it has a somewhat more complex structure which has a marked influence on its flavor charac-

teristics it is placed in a separate category. This ester has a berry flavor, a sweet taste, and a pronounced heliotrope odor. Because of its flavor characteristics, it has been recommended for incorporation into berry compositions like blackberry, strawberry, and raspberry, and also in vanilla formulations. The latter use probably depends in some measure on the heliotrope odor of anisyl formate.

Phenyl glycol formate, a material about which there is little in the literature, has been suggested for incorporation into apple, apricot, and peach flavor essences, and in oriental type perfumes.

A number of essential oil and flavor firms market the formates under special names like Formate C-10 and Formate C-12.

Flavored Notes

The response to our query concerning who makes *eugenyl isoamyl ether* was rapid. Dr. Alexander Katz and Company, Division of F. Ritter and Co. is in a position to make this compound. They prepare *eugenyl ethyl ether* and *eugenyl methyl ether* and can prepare the isoamyl, isobutyl, and isopropyl homologues if these prove of interest to the industry. This firm can also make anisyl formate about which we ran a query some time ago.

* * *

A type of slide rule, which they call the Fritzsche Flavor Selector and Calculator, is supplied by Fritzsche Brothers, Inc. to their customers. It lists their groups of flavors and the proportions recommended for the principal types of finished goods on one side. The reverse side can be used to calculate the cost per pound or per gallon.

* * *

It is interesting to note the development of derivatives of allyl alcohol, which is a toxic material, as flavoring ingredients. Among those which I have seen listed are the butyrate, caproate, enanthate, caprylate, and cinnamate.

* * *

From time to time I receive queries from those outside the New York metropolitan area concerning the possibility of obtaining lecture notes, texts, and laboratory manual used in the course on Technology of Food Flavors, Colors, and Synthetic Additives given at the Polytechnic Institute of Brooklyn. Much of the material presented in the lecture given in this course is covered by the articles which have appeared in the *AMERICAN PERFUMER* over the past three years and by the text *Synthetic Food Adjuncts* which may also be obtained from the *AMERICAN PERFUMER*.—M. B. J.

Flavoring Manufacturers Meet

The 39th annual meeting of the Flavoring Extract Manufacturers of the United States will be held at the Hotel Pennsylvania, New York, N.Y., May 23-26, according to Dr. Clarke E. Davis. Dr. Davis is associated with the Virginia Dare Extract Co.

SOAPS

Action of Soap on the Skin

C. GUY LANE, M.D.
IRVINE H. BLANK, Ph.D.

IN the manufacture of soap, fats are chosen which contain either lauric acid or oleic and other unsaturated fatty acids in order that the final soap have satisfactory lathering, cleansing and physical properties. The fatty acid fraction of an average toilet soap usually contains from 11 to 12 per cent lauric acid and 38 to 40 per cent oleic acid and other acids of one double bond.¹ A satisfactory soap may be prepared which has more lauric and less oleic acid, such as coconut oil soap, or one which has less lauric and more oleic acid, such as olive oil soap. Gardiner² and Goldman³ have stated that coconut oil soaps are more irritating to the skin than other soaps, and this is not an uncommon clinical observation. Soaps made from only olive oil have been thought to be relatively nonirritating to the skin. There has been little or no opportunity to observe the action on the skin of a soap containing neither lauric nor oleic acid, since a soap so prepared is relatively insoluble in water and has poor cleansing properties. This paper will present data on the action on the skin of a detergent which contains little or no lauric or oleic acid.

PATCH TEST WITH SINGLE FATTY ACIDS

In the first paper of this series⁴ the results of patch tests with the single fatty acids were reported. Among those fatty acids present in soap in any appreciable amount, lauric acid elicited the highest percentage of positive reactions to patch tests. Oleic acid elicited only a few positive reactions. During the past five years patch tests with the fatty acids on a large series of patients with recurrent vesicular dermatitis of the hands have confirmed these earlier observations.

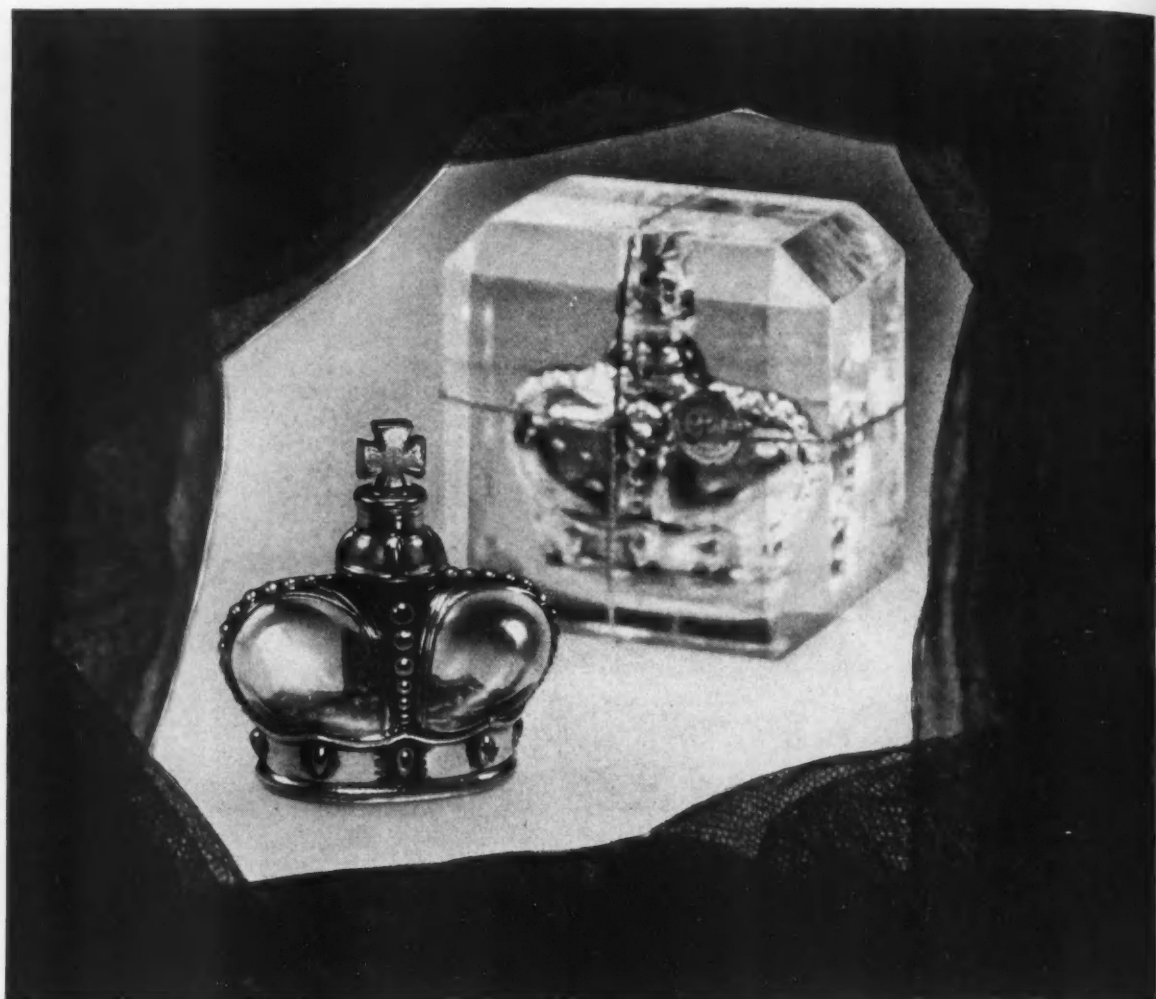
In the second paper⁵ of this series it was shown that

fatty acids are more irritating when they are held on an area of skin of which the surface pH is increased by the frequent addition of a buffer solution. This is probably the equivalent of converting some of the fatty acid to a soap. At the time that paper was written the hypothesis was stated that while fatty acids of low molecular weight, such as lauric acid, are irritating to the skin at a low pH, the acids of high molecular weight, such as stearic acid, would become irritating only if the cutaneous surface with which the fatty acid is in contact were maintained either at a relatively high pH or possibly at not so high a pH for a longer period of time. The work of other investigators and our own work reported in this paper support this hypothesis.

A patch test with a sodium soap of a fatty acid is somewhat the equivalent of a patch test with a fatty acid at an elevated pH, since the soaps are, of course, more alkaline than the fatty acids themselves. Emery and Edwards⁶ have shown that among the sodium soaps of the saturated fatty acids, sodium laurate gives the highest percentage of positive reactions to patch tests. They also showed that the sodium soap of oleic acid, an unsaturated acid, elicited more positive reactions to patch tests than the sodium soap of stearic acid, the corresponding C₁₈ saturated fatty acid.

The results of comparable patch tests with the sodium soaps of the chemically pure fatty acids on a large series of patients with recurrent vesicular dermatitis of the hands have been observed by us. Our tests were made in the following manner. A piece of white canton flannel, about 4 mm. square, is fastened to the center of a piece of non-moisture-proof cellophane, about 18 mm. square, with a drop of flexible collodion. A series of these squares is then put onto a 4 cm. strip of adhesive tape. The cloth square is then moistened with a drop of distilled water, and with the moistened tip of a wooden applicator a small piece of the dry sodium soap of a single fatty acid is transferred to the moistened cloth. The adhesive strip,

From the Department of Dermatology, Harvard Medical School, and the Massachusetts General Hospital.
Reprinted from the October 1947 issue of the Archives of Dermatology and Syphilology.



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which has one square for each substance to which the patient is being tested, is fastened around the arm, only the inner aspect of the arm being used when the strip is not too long. The strip is held in place more securely if a gauze bandage 2 inches (5 cm.) wide is used over it. This remains on the arm for twenty-four hours and the result is read one hour after it is removed.

PATCH TESTS WITH SODIUM SOAPS

The table shows the results of a series of patch tests with the sodium soaps on over 300 patients. We have chosen to try to differentiate between mild and definite erythema, since we feel that mild erythema may result from the friction of the cloth square alone and, therefore, should not necessarily be interpreted as a positive reaction to the soap. It is at once evident that among the soaps of the saturated fatty acids, lauric, myristic, palmitic and stearic, the number of significantly positive reactions to patch tests decreases as the molecular weight of the fatty acid increases (lauric to stearic). This cannot be caused by a high pH of the soaps of low molecular weight, since the pH of the soap increases with increasing molecular weight of the soap. It is also seen from the table that there are many more positive reactions to patch tests with the soap of unsaturated oleic acid than with the soap of the corresponding saturated stearic acid. Figure 1 shows the results of a series of patch tests with these five soaps (the flexor surface of the forearm has been used in this one test for photographic purposes).

Reactions to Patch Tests with Sodium Soaps

Soap	Negative	Mild Erythema	Definite Erythema	Papule	Vesicle	Total
Sodium laurate	14	58	126	125	20	343
Sodium myristate	40	135	146	6	0	327
Sodium palmitate	145	155	40	1	0	341
Sodium stearate	288	54	2	0	0	344
Sodium oleate	46	108	139	15	0	308

These results confirm the work of Emery and Edwards,⁶ who used a different technic for making the patch tests. These results also suggest that even though an olive oil soap (high in sodium oleate) would be less irritating than a coconut oil soap (high in sodium laurate), neither soap would be as nonirritating as one made primarily from sodium palmitate and sodium stearate.

In the second paper⁶ of this series, a technic of testing employing a window patch⁷ was described for holding a fatty acid in contact with the skin in the presence of buffer solutions of varying pH . With this same technic, the four saturated fatty acids (lauric, myristic, palmitic and stearic) are held onto the flexor surfaces of the forearms, and the patient is asked to moisten the areas under each patch with a borate-boric acid buffer solution of pH 9 once an hour during the waking hours of a test period of twenty-four hours. The result of the test is read one hour after removal of the patches. The lauric acid usually elicits an intense erythematous or papular reaction, the myristic acid a less intense erythema, the palmitic acid usually a negative reaction but occasionally a mild erythema and the stearic acid almost a negative reaction. The results of a test of this type are shown in Figure 2.

Thus, it is apparent that even though a fatty acid of low molecular weight, such as lauric, may be irritating to the skin at a pH of 7 or lower, the fatty acids of higher

molecular weight (palmitic and stearic) will probably not irritate the skin even at a pH as high as 9.

As previously stated, a cake of soap made from palmitic and stearic acid (this mixture is commercially called triple-pressed stearic acid) at a pH of 9 would be an unsatisfactory detergent. It would be hard, would not lather and would clean poorly. If, however, a nonirritating cleansing agent could be added to such a base, a satisfactory detergent might result.

Oleic acid may be sulfated to varying degrees. A series of patch tests with low sulfated oleic acid (9 per cent organic sulfur trioxide) and high sulfated oleic acid (16 per cent organic sulfur trioxide) showed that the higher sulfated material was less irritating to the skin than the low sulfated acid. In a further investigation the low sulfated acid was fractionated into a high sulfated fraction and an unsulfated fraction. Patch tests with these two fractions again showed the high sulfated oleic acid to be nonirritating, while the unsulfated fraction showed many positive reactions to patch tests. Thus, it seemed apparent that if oleic acid could be sulfated so as to convert it almost entirely to the sulfato-octadecanoic acid it would be nonirritating to the skin and possibly would produce a satisfactory detergent when used in conjunction with palmitic and stearic acids.

DETERGENT PRODUCTION

Such a detergent has now been produced.⁸ It contains primarily palmitic, stearic and the sulfato-octadecanoic acids adjusted to a pH of 8.5 plus or minus 0.1. It contains no lauric acid and only a small amount of myristic acid (usually less than 5 per cent of the fatty acid fraction). Since the material has received a high sulfation, the amount of residual unsulfated oleic acid is negligible. This detergent has been under clinical investigation for the past three years.

Patch tests with a small piece of this detergent on 211 persons elicited 171 negative reactions, 33 reactions of



FIG. 1—Reactions to patch tests with the sodium soaps of lauric, myristic, palmitic, stearic and oleic acids.

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mild erythema, 6 reactions of definite erythema and only 1 papular reaction. The reaction to a patch test with an average toilet soap with this technic is rarely negative; the reaction is usually definite erythema. A patch test with 2 cc. of an 8 per cent solution of this detergent, according to the technic recommended by Kooyman and Snyder,⁹ almost never elicited even the mild erythema or wrinkling of the skin not uncommonly resulting with an average toilet soap in tests with this same method.

palmitate elicit a relatively low percentage of significantly positive reactions to patch tests.

2. Stearic acid and palmitic acid usually elicit a negative reaction when held on the skin in the presence of a buffer solution of pH 9.

3. Highly sulfated oleic acid (sulfato-octadecanoic acid) usually elicits a negative reaction to a patch test.

4. A solid lathering cake detergent made primarily from stearic, palmitic and sulfato-octadecanoic acids and

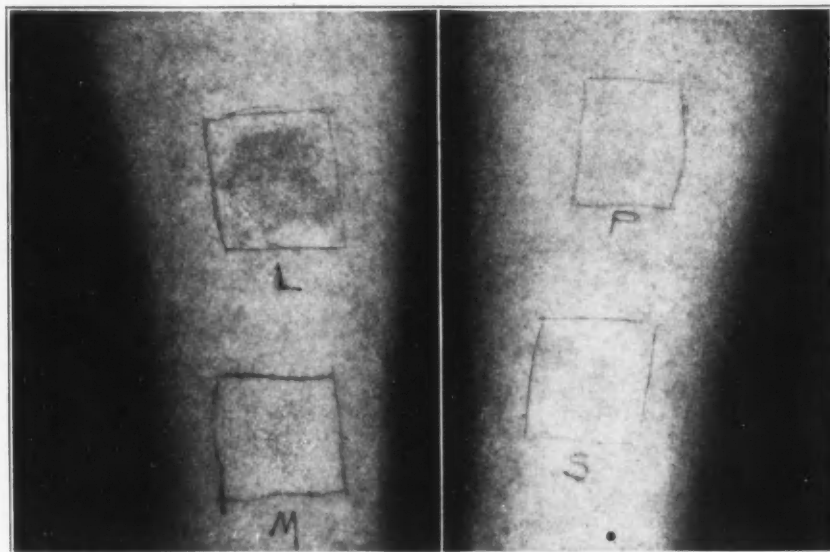


FIG. 2.—Reactions to patch tests with lauric, myristic, palmitic and stearic acids in the presence of a buffer solution of pH 9.

Clinical investigation of this detergent has been limited primarily to its use by over 200 patients with recurrent vesicular dermatitis of the hands. A regular soap is usually thought to aggravate this type of dermatitis. These patients have used the detergent as a general cleanser for all personal hygiene. They have been asked to avoid the use of other soaps while using this detergent. Other types of treatment, such as with boric acid soaks and mild ointments, usually accompanied this change in detergents.

In no instance, have we seen an exacerbation of the dermatitis which could be interpreted as an irritation or acquired hypersensitivity to the detergent. Almost all the patients found it a satisfactory cleanser. Some patients reported that this detergent caused more smarting than regular soap, and others reported less smarting. There has been no consistent impression as to whether the use of this detergent seems to leave the skin "drier" or "oilier." Until a more satisfactory method for the objective evaluation of "oiliness" of the skin is developed, we are forced to rely on the patients' impressions for such an evaluation, and these impressions are not always reliable. Clinical investigations of the use of this detergent for various cutaneous diseases are being continued by us and other dermatologists.

SUMMARY

1. Among the sodium soaps of the single fatty acids commonly contained in soaps (lauric, myristic, palmitic, stearic and oleic), only sodium stearate and sodium

containing little or no lauric or oleic acid has been observed to be nonirritating to the skin both by patch tests and by clinical investigations.

¹ Lane, C. G., and Blank, I. H.: Cutaneous Detergents, *J. A. M. A.* 118: 804-817 (March 7) 1942.

² Gardiner, F.: Soaps and Their Effects on the Skin: An Analytical Research, *Edinburgh M. J.* 8:514-520, 1912.

³ Goldman, L.: Patch Tests with Soaps, *M. Bull. Univ. Cincinnati* 7:90-92 (Nov.) 1935.

⁴ Blank, I. H.: Action of Soap on Skin: I. Patch Tests with Fatty Acids, *Arch. Dermat. & Syph.* 39:811-816 (May) 1939.

⁵ Blank, I. H.: Action of Soap on Skin: II. Patch Tests with Fatty Acids at Various Hydrogen Ion Concentrations, *Arch. Dermat. & Syph.* 39:817-821 (May) 1939.

⁶ Emery, B. E., and Edwards, L. D.: The Pharmacology of Soaps: II. The Irritant Action of Soaps on Human Skin, *J. Am. Pharm. A. (Scient. Ed.)*, 29:251-254 (June) 1940.

⁷ Guild, B. T.: Window Patch Test, *Arch. Dermat. & Syph.* 39:807-810 (May) 1939.

⁸ Manufactured under the name "dermolate" by the National Oil Products Co., Harrison, N.J.

⁹ Kooyman, D. J., and Snyder, F. H.: Tests for Mildness of Soap, *Arch. Dermat. & Syph.* 46:846-855 (Dec.) 1942.

U. K.'s Imports of Soap

British imports of soap during November 1947 totaled 93 hundredweight, valued at £502, compared with 329 hundredweight, valued at £2,808, in the like month of 1946, reports the British press. Average monthly imports during 1938 amounted to 14,755 hundredweight, valued at £52,525.

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Indian Soap Journal

The South India Soap Makers' Association, founded November 3, 1946, has begun publishing an association journal, *Soap*. Volume 1, Number 1, made its appearance in January 1948.

Allotment for Imports of Acids and Oils

In 1947, the sum of \$4,800,000 was allotted for the importation of fatty acids and oils for the production of soap in the U.S. and British Zones of Germany, according to the Hesse economics ministry.

Soap Production, Poland

The production of soap in Poland still falls short of prewar levels because of the scarcity of fats, but improvement is steady. In November 1947, 820 tons of soap were produced, compared with 800 tons in the preceding month.

Soap Imports, Reunion

Imports of soap into the island of Reunion during the first 11 months of 1947 amounted to 471,000 kilograms, valued at 12,930,000 francs. (70 Colonial French African francs=US\$1.) The chief sources were: France, 3,300 kilograms, valued at 141,000 francs; Madagascar, 600 kilograms, 19,000 francs; French West Africa, 200,000 kilograms, 5,871,000 francs; French Indo China, 100 kilograms, 5,000 francs; French Equatorial Africa, 261,800 kilograms, 6,784,000 francs; Australia, 4,600 kilograms, 93,000 francs; England, 600 kilograms, 16,000 francs, and the United States, 1,000 francs.

Soap Factories Planned

Unilever, Ltd., reportedly is planning to build soap and margarine factories in Macassar, Celebes, in the Netherlands Indies and elsewhere in the Far East, to supply markets in East Asia, according to the foreign press.

Poland's Soap Industry

The importation of a large consignment of technical fats into Poland has had a favorable effect on soap production, which expanded by almost 87 per cent during the third quarter of 1947 over the second quarter, reports the foreign press.

There are 345 factories in Poland that chiefly manufacture soap, scouring powders, and detergents. These are privately owned and employ about 20 per cent of the total labor force used by private chemical enterprises. In addition, 115 factories, employing 700 persons, produce cosmetics.

Miller Appointed to Soap Post

J. Malcolm Miller has been appointed acting secretary of the Association of American Soap and Glycerine Producers, Inc., succeeding Roscoe C. Edlund, who was secretary and manager. Mr. Miller has been in charge of organization finance, office management and personnel since 1934. He has also been elected secretary-treasurer of the American Fat Salvage Committee, Inc. Mr. Miller was educated in business administration at DePaul and Columbia Universities and holds membership in the American Trade Association Executives, The National Office Managers Association and the Seventh New York Regiment.

Diamond Alkali Moves

The Diamond Alkali Company has announced the removal of its general offices from Pittsburgh, Pa., to Union Commerce Building, 925 Euclid Avenue, Cleveland 14, Ohio. The telephone number is Main 6100.

Lissar Plant To Be Enlarged

The manager of the Luzon Industrial Corporation in the Republic of the Philippines, which purchased Lissar, Inc., recently announced that the Lissar plant facilities are to be enlarged and modernized to raise annual production of soap and toilet articles from 8,000 tons to 15,000 tons, reports the foreign press.

The present Lissar plant facilities, employing about 150 persons, include five main buildings in Makati, Rizal.

Belgium Soap Picture

Preliminary statistics on imports of soap into the Belgo-Luxembourg Economic Union during the first 9 months of 1947 total 7,792 metric tons, valued at 96,437,000 francs, compared with 7,372 metric tons, valued at 76,476,000 francs, in the like period of 1946. (Belgian franc=\$0.0228.) Exports of soap from the Belgo-Luxembourg Economic Union during the first 9 months of 1947 amounted to 1,662 metric tons, valued at 21,939,000 francs, against 870 metric tons, valued at 4,051,000 francs, in the comparable period of the preceding year. The figures for 1947 are preliminary.

Soaps and Toiletries, Costa Rica

Imports of soaps and toiletries into Costa Rica during 1946 included the following items: Dentifrices, 50,593 kilograms, valued at \$89,109; perfumery, 82,673 kilograms, valued at \$198,475; toilet water (agua Florida), 1,403 kilograms, valued at \$899; fine and medical soap, 91,034 kilograms, valued at \$74,160; ordinary soap (all kinds), 126,465 kilograms, valued at \$36,867; and essences and extracts, 34,572 kilograms, valued at \$95,589.



WASHINGTON PANORAMA

by **ARNOLD KRUCKMAN**

THE Marshall Plan is the next big legislative action in the Congress. It should be all done and buttoned up by May 1, but there is always in politics the unexpected possibility of the poetic slip between the cup and the lip. Assuming that the slip will not occur, the State Department, in cooperation with all other agencies, has been driving hard to be ready for actual business just as soon as the form of the administrative agency has been defined, and the funds are available.

BILL OF MATERIALS

The subject is of immediate pertinent interest to your industry because chemicals, fats and oils, alcohol, containers, and domestic as well as international transportation will be actually affected. State Department apparently has organized the preliminaries with a certain military precision and team-work that undoubtedly reflects Gen. Marshall's ideas. During past months, when the Bill of Materials was drawn up, under the leadership of Undersecretary Lovett, the many agencies and the various Departments of the Federal Government were drawn together in a unison of effort that is almost unique.

The old problem as to who has jurisdiction over the materials and products of your industry apparently again comes to the front. It has not been settled just what comes within the province of the Department of Commerce or the Department of Agriculture. So far as is known no material or commodity identified with your industry has yet been discussed in the preliminary stages with members of your industry by the Drugs and Chemicals Branch of the Bureau of Foreign and Domestic Commerce, headed by C. C. Concannon.

OFFICE OF INTERNATIONAL TRADE

In order to properly handle the work imposed by the needs of the Office of International Trade, Concannon has added something like 60 persons to his organization. An average of 33 applications for permits to export essential oils and similar materials daily pass through the Branch. The greatest foreign demand is for cedarwood oil, peppermint oil, and balsams. The applications usually request large volumes. The materials are shipped almost everywhere; peppermint, as is customary, is in greatest demand by the British.

Several notable automobile plants have ceased making cars and have been converted to production of military equipment, according to responsible sources. This is part of an apparently developing trend. Other industries also are contributing similar conversions. Whatever some people here and out in the wide open spaces may think, the Pentagon and other armed services, take the war potential very seriously. Nor is their seriousness simply the camouflage to get more funds and to expand the services for the pure sake of expansion.

The way they see it, at the moment, there is a war in the cards, perhaps within six months. They sincerely do not want war any more than you or I do; nor do they think it is inevitable. But they are aware of those 49 best Russian divisions which are reported to be poised for some apparently active purpose in Europe. And they estimate Stalin keeps a total of not less than 200 divisions under arms, which includes the 46 poised from Manchuria to Asia Minor. They also are aware that three divisions of Yugoslavs are reported to be in fighting trim on the border of Greece, and more divisions of Bulgarians are said to be ready for something over the line from Turkey. There is no peacefulness in the action of both Turkey and Bulgaria in sending each other's diplomatic representatives home.

The Russian army is reported to number 4,600,000 effectives. In addition it has huge resources of well-trained irregulars and guerrillas.

It is wise to contemplate what this state of emergency might mean to your industry. Sheep already are scarcer than cattle, and we are expected to have a cut of not less than 15 per cent in our meat supply this year. Production of airplanes has been stepped up. Motors will be shipped to all parts of our far-flung outposts. Inevitably lanolin will be used. You will recall how short we were of lanolin during the war. There is already an increased demand for guaiac-wood gum which is used as a preservative in lard and many other foods. They use great quantities in a war emergency. Peppermint already is in great demand, with the need growing. There will be an increasing demand for citrus oils, (especially lemon) which are used for beverages as well as for needs that have nothing to do with drinks. Benzyl-Benzoate is a material of interest to those who do war planning. Cedarwood oil, already in mounting demand, will be even more needed for protective

coatings; the balsams are widely used, as is glycerin, and citronella Java oil.

There are many products in creams for camouflage and as protective creams. During the war the armed services bought huge quantities of eucalyptus oil and of lavender oil. The laboratories obviously have not been idle, and it is certain that many other essential oils and other products, such as alcohol, will be used in vastly increased quantities. It is anticipated there will be a tremendous demand for vegetable juices for their extraordinary content of the highly desirable vitamins.

Another near-war activity of Government which touches your industry is the organization known as the National Security Resources Board. It is headed by Arthur M. Hill, Chairman of the Board of the Greyhound Bus Lines, of Charleston, S.C. The Secretaries of State, Treasury, Defense, Interior, Agriculture, Commerce, and Labor, compose the Board. It is organized to do the exploration among the industries of the nation which will develop complete information about the resources upon which may be built the structure of mobilization, stockpiling, dispersion, strategic relocation, scientific and technological knowledge, industrial mobilization, military mobilization, manpower, and all other data necessary as the background for planning total utilization of every resource in the nation for war.

The Board makes the studies, collects the facts and figures, and reports them to the operating agencies which use the information to carry plans into effect. It has headquarters in the Pentagon, and is rapidly setting up 24 different divisions. The Chemicals Division will include a survey, and a plan for the use of the resources of your industry. Apparently part of your industry also will come under the activity of its agricultural division. Various interdepartmental committees have been set up; as well as inter-governmental committees, which tie in the interest of the different States and cities and other political subdivisions. Other committees are composed of representatives from the many industries, who work with each other on inter-industry committees, as well as with the Federal and non-Federal government committees. In effect, this is an institution to implement the mechanics of total mobilization.

Word from responsible quarters reports that the lawyers of the Federal Trade Commission are just about to hand to the members of the Commission their final draft of the Fair Trade Practice Rules suggested to govern the Toiletries, Perfume and Cosmetic Industries. This is the difficult task which began just a year ago in May, 1947. It split upon the rock of demonstrators and P.M.'s.

It is not known what solution the suggested Rules offer, but it is not expected they will legitimize the debated issues without a change of law. And apparently the Hill will not consider a change in the Robinson-Patman Act unless the demonstrator and P.M. privileges in some form are permitted clean across the board without reference to the volume of business involved. In due time the Rules will be considered by the Commission in full, and the members will render their opinion. If the usual split vote does not occur, and there is a majority in favor of calling the public hearing to consider the suggested rules, the notice will be given to summon the interested public to Washington on a given date. When that may be is anybody's guess.

Sometime during the next month it is regarded as

reasonably certain Congressman Jenkin's subcommittee will report to the full Ways and Means Committee on the bills introduced by Congressman "Bud" Gearhart, H.R. 4288 which provides that excise taxes on toiletries and cosmetics be reduced to 10 per cent collectible at the source; and H.R. 4287, which eliminates the present 20 per cent excise completely. It appears to be the consensus that the Ways and Means Committee may approve the first bill. There is some doubt whether or not the war psychology, which is growing on the Hill, will cause the Congress to hesitate to enact the bill into law.

TAX REDUCTION

It is obvious that, despite the tax reduction voted by both Houses, the Congress must almost immediately enact another law which will cause the collection of a total of more taxes than those which are remitted by the bill passed in Congress. It apparently is the thought of the Congressional leaders that the tax reduction will make votes, and that the voters will docilely accept even greater tax exactions for war without any complaint. Another bill, intended to reduce the tax on ethyl alcohol to \$1.00 per crude gallon, also will be reported to the Ways and Means Committee by the Jenkins subcommittee.

All this tax discussion is pointed up by the recent announcement that soap and toiletries exports in 1947 totalled \$41,300,000, \$4,100,000 more than in 1946. Exports of toiletries totalled \$24,500,000; cosmetics were shipped outward at the rate of more than \$2,000,000 per month for 9 months.

OIT announced the British Government again has put into effect its Token Import Plan, under which manufacturers with prewar trade connection in the United Kingdom may export to that area token shipments not to exceed 20 per cent. . . . The American Consul in North Travancore, South India, reports the Government has established a 20-acre breeding station for lemongrass, under the direction of trained botanists, to raise superior plants. . . . Chinese harvest of 300,000 pounds peppermint is expected to produce 150,000 pounds menthol this year. Over 1,000 cases of menthol crystals are reported to be held in storage at Shanghai as a hedge against inflation. In 1947 China sent to the U.S. 38,916 kilograms of menthol, valued at \$8,267,141 Chinese Dollars, equal to \$1,000 per standard dollar.

France sent us from Nice, perfumery to the total of 124,300 pounds, valued at \$1,527,630, last year. Floral water amounted to 66 gallons, valued at \$5.39. Shipments at various times consisted of lavandin oil, lavender oil, geranium oil, jasmine flower essence, tuberose essence, rose essence, iris essence, and lichen essence. Lavender oil and lavandin oil far exceeded in volume all the rest. . . . Guatemala last year sent us 316,575 pounds citronella oil, valued at \$709,490; lemongrass oil, 144,701 pounds, \$256,534; eucalyptus oil, 253 pounds, \$531; cardamon oil, \$4,759.

The President of Brazil in February promulgated a law requiring that an official license must be obtained before any import or export transaction can be concluded.

The new law offers no assurance that exchange will be given promptly to cover licensed imports. There is a current backlog of overdue dollar payments.

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NEW PRODUCTS AND PROCESSES

Shredding Machine

An all-purpose shredding machine which turns out packing material in the form of long dustless strips of paper 1/32 inch wide, or any desired multiple thereof, is being introduced by Shredmaster Corp. The Shredmaster shreds rolls of paper, wax, tissue and Cellophane, automatically. It also shreds newspaper, labels, premium packages and office waste.

Light Weight Safety Goggle

Safe-T-Vis, a new type of safety goggle is being marketed by Univis Lens Co. The goggle is made of allyl casting resin, and is approximately one-half the weight of case-hardened glass lenses.

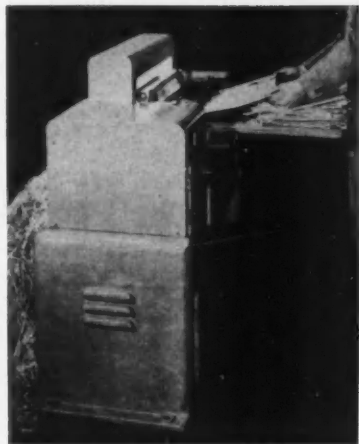
Small Run Filler

MRM engineers have designed the new Model "B" Filling Machine for small production runs. As a result, any product from foamy to viscous may be handled, permitting manufacturers to take on varied jobs with liquids of diverse natures. All metal contact parts of the Model "B" are of stainless steel or other materials, as required. The unit is compact, and is mounted on rolling casters. The low-cost unit contains its own motor and pump, and handles all sizes of containers and mouth openings from a fraction of an ounce through a quart.

Bacteria-Killing Lamp

A new bactericidal lamp that emits more than twice as much ultraviolet radiation as any lamp heretofore available has been developed by the Westinghouse Lamp Division. It is a 36-inch-long, instant starting lamp, that may operate at three different levels of ultraviolet intensity. The output varies depending upon the current rating of the ballast used with the lamp. It is stated that this more efficient lamp cuts the overall cost of ultraviolet protection almost in half.

& Essential Oil Review



All-purpose shredder

Non-Ionic Wetting Agent

A new non-ionic wetting agent, EMCOL 5100, has been announced by the Emulsol Corp. This product is said to be of the alkanolamine condensate type, light in color, clear, and has viscosity modifying effects, good wetting and detergency as well as rinsing properties. A bulletin on the product is available upon request.

Automatic Filler

MRM Co., Inc., has introduced a new, fully automatic filler, the "R-48," priced to reach all manufacturers. It handles all styles and shapes of containers from a fraction of an ounce to a quart. It is stated that viscous, foamy or still liquids can be handled with equal speed and ease.

Aqueous Sorbitol

The Atlas Powder Co., Wilmington, Del., which has previously offered crystalline Sorbitol and commercial Sorbitol solution, has, through new manufacturing techniques, been able to develop, and offer for sale, Sorbitol aqueous solution. The price is: 600 lb. drums, ton lots, works, 19.6¢ per lb.; carload, drums, works, 18.55¢ per lb.

Price on N.D.G.A. Reduced

The Nordigard Corp. has announced that due to an increase in production of N.D.G.A. Antioxidant by 451 per cent in a twelve month period, its price has been again reduced. Now effective, the price is: 1 lb., \$45.; case lots, 12 lbs. per case \$45. per lb.; 10 cases or more, \$44. per lb.

New Catalogs

A new 76-page catalog of perfume raw materials, entitled "A Symphony in Fragrance," containing many new products, has been published by Givaudan-Delawanna, Inc., New York, N.Y.

The catalog is divided into five sections, covering the various categories of products manufactured by the company—synthetic aromatics, specialties, compositions, extraction products and cosmetic and pharmaceutical materials. Descriptive information on the odor and use of each product is given.

A section of the catalog designed to aid the cosmetic manufacturer in the perfuming of his products is a listing and description of almost 200 perfume oils or compositions specially blended and recommended for various types of cosmetic products.

Dodge & Olcott, Inc., New York, N.Y., which is currently celebrating its 150th anniversary, has printed a new price list. It may be obtained without cost.

Florasynth Laboratories, Inc., New York, N.Y., has issued a new wholesale price list. Copies may be obtained without obligation.

The R. T. Vanderbilt Co., New York, N.Y., has just recently issued three booklets entitled, "VEEGUM in Pharmaceuticals," "VEEGUM in Household Specialties," and "Products Available from the Specialties Department." Copies are available without charge.



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Harold Hutchins says . . .

JUST A VOGUE

Not so many decades ago, there was deluge of books with "How to be Happy" in their titles. Some went "How to be Happy Though Divorced," others had "Married," still others implied one could be "Happy Though Sixty," etc. Are people any more happy in consequence? And would you pay a dime in a second hand book store for one of those once most sought for titles? It appears to have just been another vogue that dies off soon enough.

NO HALF & HALF

The medical journals are pro and con, as one might expect, on the subject of the gleam in father's eye to the grave, when it comes to the medico of the future. Yet, it may be consummated so that a medico might have his complete education at Government expense, meaning yours and mine, in return for a promise of working a few years for the Government. The Medical Times of New York sees trouble ahead. If the doctors go that way, so may follow pharmacy and, in turn, cosmetology. Our country cannot be half and half on anything.

A FREE IDEA!

The time is now. Some concern, in this dermatologic-cosmetic-pharmacologic field, is going to have the vision to go all out on an accident prevention plan and, in turn, increase its public relations and good will. It will not be a job for just a week, and it will not be a campaign. It will be a long continued effort, plus great intensity. This campaign will not be one of stepping on other peoples' toes. It will not be a knocker campaign. It will be a booster kind of effort. It will have a tremendous audience—the ten mil-

lion people who survive accidents each year, or at least did in 1947. And then there are the survivors of about 100,000 victims of fatal accidents, annually. We have nothing to sell in connection with this idea, but do pass it along to you with some figures that prove the home is a more dangerous place to be than out on the road.

NO DREAM

That fellow, whose lectures we attend once in too great a while, really wrote this spelling of emulsion on the blackboard as "LIFE," during his discussion of surface acting agencies. And now there is much talk of sludging of the blood. And what is sludge but a form of emulsion and emulsion spelled "LIFE"!

AROUSE INTEREST

The work of Rothman and Henningsen, reported in the Journal of Investigative Dermatology in 1947, noted the sunburn protecting effect of paraminobenzoic acid. And we might say that it is all good work, including the earlier work on phenyl salicylic acid, and other older remedies, such as quinine and esculin, which are now in the shade, where they belong.

PHONETIC SPELLING

We still see many of the old standard remedies in print and still going strong, but with a different appeal than in our youth as a pharmacist. One of these, which we have in mind, is Baume Bengue. When it hit the public with that phonetic spelling it really zoomed in sales, we understand, while before then, its sales were not too hot. There is a lesson here, readers, and what a lesson!

WHAT GOES HERE?

Now these old eyes have seen everything, or at least once again. Just you read for yourself a book written by Harry L. Alexander, Professor of Clinical Medicine at Washington University, in which he says—and how the allergists love him for it—that "the skin test which was looked upon as absolute is now regarded as unreliable." Well, boys, what are we going to do? Alexander is wide open in his apparent (and perhaps real) acceptance of the theory, now decades old, of the H-histamine substance as basis for allergic responses. The decarboxylation of histidine to histamine must be accepted, but whether it is the only, or the only direct, cause of the reaction worthy of the name—altered reactivity or allergy—is open yet to research, not question. All this, except the few words in the quotation marks, are editorial and not from Alexander. But, old timers will probably seek further help from Clark and Lewis. There is still a lot in the H for Histamine idea. And Alexander did say the skin tests are unreliable. Maybe he only meant they were specific, but not diagnostic?

TOADS & WARTS

And how does folk-lore medicine like the recent publication of a series of cures of warts, including that old toughy-on-the-sole, called plantar wart, by the administration of Vitamin A? Fisher and Chamberlain, in the Pennsylvania Medical Journal, November, 1947 issue, tell of their results through 100,000 Vitamin A daily. An encouraging percentage of cases were cured. The others were given the Roentgen ray exposure. So, now the story of the toads and the story of Vitamin A in the mythology of warts!



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BOOK REVIEW

We haven't seen it, but the announcement spells good news. It's a Dictionary of Americanisms. It may be the subtitle—"Why the English Don't Understand Us." But, seriously, there are lots of words one can't translate. We think of hussy, as an example, and you can think of others.

FIVE MAJOR FACTORS

Speaking before the Sales Management Conference, John T. Woodside, president of Weco Products, said there are "five major factors involved in the sale of a product." The first major factor is "the merit of the product." The second major factor is "consumer advertising, i.e. magazines, newspapers, radio, etc." The third major factor is "window displays, especially in the 30 per cent of the retail outlets that secure 70 per cent of the retail sales. This locates the product advertised for the consumer. This, experience shows, increases our sales 50 per cent. The fourth major factor is "counter display, mass presentation of the product to the consumer. The displays must be clean and there must be complete assortments in effective locations, such as the traffic line, wrapping counter, cash register or main entrance. Experience shows this, plus an effective window display, increases our sales 150 per cent." The fifth major factor is "the retail salesman. He should be educated to the merit of the product, be able to confirm the statements of the consumer advertising and demonstrate the product if possible. If he is paid for this work and suggestive selling, sales will multiply themselves over normal. Experience shows increases four to five times, if window and counter displays are coordinated with this effort."

DRUG STORE RETAILING

Yearly sales of more than \$100,000 were represented by 52 of 814 local chain and independent drug stores in the State of Connecticut, according to a recent field survey made by Dun & Bradstreet, Inc. Almost half of these stores do an annual business of over \$50,000, and only about one-tenth of them have sales of less than \$25,000 per year. Packaged drugs were frequently indicated, in this \$49,000,000 retail drug store market, as the largest department in dollar volume, followed by prescriptions, soda fountains, tobacco, cosmetics, liquor and candy, in the order named. Nearly 75 per cent of

the 814 stores have been at the same location for over 10 years, which spells stability for drug store retailing. As for future plans, 151 of them plan to enlarge or remodel. Information on the sales volume and methods of operation of individual stores, together with estimates of the sales volume ranking of branded products in cosmetics, perfumes, men's toiletries, and vitamins, have been prepared in the form of drug store marketing reports. Complete sets of reports, each covering a single store, are furnished on a fee basis to interested parties who contact the Marketing and Research Division of Dun & Bradstreet, Inc., 290 Broadway, New York City 8, N.Y.

POINTLESS ITEM

How are you doing with those new pens? Do you find them an improvement on the older style of fountain pens? Do you sometimes find those renewal ink reservoirs run dry months or years against that guarantee of writing for so many years or decades? Would you buy one of them, if you lost the one some grateful reader had given you? By the way, have you ever counted the exact number of writing devices you have accumulated? And the numerous lighters? It seems the sacs of many fountain pens are unfit for use. The size and color of lead for another substitute for pencil is never available when and where you need it. The amount of what one took for gold in fountain pen points seems to have shrunk to almost nothing, but the cost seems to have gone up and up.

WHAT'S YOUR GUESS?

We are for free enterprise—private business—only we wonder and wonder. We also wondered when the soap cake, shaving mug and shaving brush was doomed by brushless shave cream. Is that any consolation?

FEATURE NEW IDEA

Shelfline containers, recently introduced by the Owens-Illinois Glass Co., will be featured by that company in its display at the Packaging Exposition in Cleveland's Auditorium, April 26-30. Housewives' preferences, expressed in a nation-wide survey, were the basis of fashioning the Shelfline, which answers the packer's need for a complete line of containers that can eliminate private molds for drug and cosmetic manufacturers.

PLEASANT SCENTS

According to the Sindar Reporter, toys with pleasant fragrances will be the next step forward in merchandising plans for the makers of toys and playthings, infant and crib novelties, balls, dolls and other commodities to amuse, divert and educate the up-and-coming generation. At this time, Alan-Jay Plastic Products are preparing to place a line of scented products on the market, as Sindar Corp. comes forth with a list of perfume products for plastic toys, rubber toys, fabric toys, and for glues in toys.

THE "KNOW-HOW"

Technical service—the "know-how" that reduces cost and improves quality somewhere along the line between raw materials and finished product—can sell chemicals, if handled correctly, states the New York Journal of Commerce. An efficient technical service organization explores the compatibility of their products with those which are an integral part of the present manufacturing cycle. "Sales" are the ultimate objective of a company's technical service set-up, providing such a set-up isn't treated as a simple catch phrase in the hands of a glib salesman.

FREE MOVIES

"Now For Tomorrow," the twenty-minute sound-color presentation produced by Owens-Illinois Glass Company, has been shown to over 5,000 senior students in Los Angeles high schools, during the period from July to December, 1947. The movie features the past, present and future of drug store merchandising. It also suggests departmentalization for increased profits. The film is available by writing to Owens-Illinois, Toledo, Ohio.

GROCERS PUSH COSMETICS

In what may prove to be a significant move in the cosmetic business, a new line of beauty aids, manufactured by the Allied Home Products Corp. of Beloit, Wis., will be sold exclusively through grocery stores on a nation-wide basis. This action follows sixteen years of concentration by the company on the manufacture and distribution of detergents, cleaners, waxes, polishes, insecticides and disinfectants. A new cosmetic division, under the supervision of Alfred E. Kovant, will offer a complete line of toiletries and cosmetics, all ten items to retail at 49 cents.

NEW LOOK-AHEAD

A fresh approach to the subject of vocational guidance, "Your Future is What You Make It," prepared with the assistance of personnel executives, school administrators and teachers throughout the country, has just been published by the National Association of Manufacturers. Vocational "case histories" of young men and women, and photographs which trace the steps a typical high school student takes in his search for the right job, are features of the 32-page booklet, which includes down-to-earth hints and techniques in choosing a vocation, preparing for it, and how to advance after landing the spot.

14th ANNIVERSARY

The Oklahoma University held its 14th Annual Convention on the University campus last month in the form of a one-day, complete practice convention. Papers were read by various groups of the organization and officers elected for the coming year. Under the careful guidance of progressive Professor Ralph Bienfang, various awards were made, such as the outstanding man in the school, highest ranking senior, outstanding woman student, highest ranking sophomore, and to top it off, a "Miss Pharmacy of 1948" was selected.

\$250,000,000 APPEAL

Approximately 75 key figures in the chain drug field attended two luncheons in New York last month on behalf of the \$250,000,000 United Jewish Appeal campaign, under the Chairmanship of Nate Shapero, president of the Cunningham Drug Stores, who heads up the Drug and Cosmetic Division of the drive. The meetings were held at the New Yorker Hotel, during the meetings of the Affiliated and Associated Chain Drug Store groups.

DCAT DINNER

Leland Stowe, noted foreign correspondent and author, addressed the 22nd Annual Dinner of the Drug, Chemical and Allied Trades Section of the New York Board of Trade which was held last month at the Waldorf-Astoria. Mr. Stowe, 1930 Pulitzer prize winner for the best interpretive writing of any American correspondent abroad, spoke on the subject of "Behind the Czech Tragedy" and included a report of his interviews with important leaders during his recent visit to Czecho-Slovakia. The Din-

ner Program Committee was under the chairmanship of Harold Altschul, president of Ketchum & Co., New York City wholesale druggists. Fred J. Stock, vice president of Chas. Pfizer & Co., and Chairman of the DCAT, was the presiding officer. Many officers of trade associations and various government executives were among those present.

ALL FOR BEAUTY

With its July issue, Glamour becomes the first magazine in its field to devote an entire issue to beauty. The entire editorial content—all fashions, features and departments—will tie in with this theme. Important new cosmetics, grooming methods and beauty trends will be presented in this issue, "Glamour's Guide to Good Looks." In addition, a 20-page section will be devoted to "pure" beauty, in which "10 Points of Beauty" will be discussed. If the response to this issue is as great as anticipated, Helen Van Slyke, beauty editor of Glamour, states they will make it an annual project.

LEVER BUYS LUXOR

Purchase of the Luxor trade-mark and goodwill of the Luxor cosmetic business has been announced by Lever Brothers Co. The Luxor business will be conducted by the Pepsodent Division of Lever Brothers in Chicago, which now distributes Lever toiletries to drug, syndicate and department stores, according to Charles Luckman, president of Lever Brothers. The Luxor business grosses between \$1,500,000 and \$2,000,000 annually, it was reported. Its sale will become effective July 1st. This marks Lever's second entry into the cosmetic business, since having purchased Harriet Hubbard Ayer in July, 1947.

SHOPPING BY SHIPPING

In early America, the captains of coastwise trading ships used to get shopping lists from housewives in their home ports. The skippers would try to fill these lists in the ports they visited. But, often the women would be disappointed when, after a long wait, they received inferior products or merchandise of the wrong size. Today, thanks to the brand system, neighborhood stores carry about everything the housewife needs, and because these products are identified by well known brand names she can depend on fine quality at low cost, plus a wide selection of sizes and styles.

MORE RESEARCH

The American Council of Commercial Laboratories announces a contract for the technical control of coal shipments to Europe by the Pittsburgh Testing Laboratory, running into several million tons, which already has resulted in a better grade of coal coming from the mines.

HONORS BUYERS

Paying tribute to the buyers who place orders that make the jobs, California manufacturers gathered on April 13th, at a testimonial luncheon in the Biltmore Bowl, in the Biltmore Hotel, Los Angeles, under the auspices of the California Manufacturers Association. Representing the buyers who were honored were top purchasing executives of such firms as United-Rexall Drug Co., McKesson & Robbins, F. W. Woolworth, S. H. Kress, Sears Roebuck and Co., and a score of others.

NOVEL IDEA

Manufacturers will be offered an unusual opportunity to display their merchandise in a model drug store which will highlight the 70th Annual Meeting of the New York State Pharmaceutical Association at Upper Saranac Lake, New York, late in June. The store will be erected in the lobby of the Saranac Inn and open to daily inspection of the 5,932 members of the Association, in convention from June 21st to 24th, reports Nicholas S. Gesoalde, secretary of the Association. Harry Griffiths of the Pennsylvania Drug Stores, heads a special group of merchandising experts who are in charge of the model store.

PACKAGING MEET

Plans for the first Western Packaging Exposition and Conference on Packaging, Packing and Shipping were significantly advanced at a meeting of Pacific Coast packaging leaders held recently in San Francisco. The exposition, first major event of its kind ever projected for the far West, will be held in the San Francisco Civic Auditorium, August 10-13, 1948. Some 100 companies engaged nationally and regionally in the manufacture and distribution of machinery, equipment, materials, supplies and services in the fields of packaging, packing and shipping will exhibit. Concurrently with the first three days of the exposition, will be held the conference at which leading authorities will speak.

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U.S.I. CHEMICAL NEWS

April ★ A Monthly Series for Chemists and Executives of the Solvents and Chemical Consuming Industries ★ 1948

First 'Grain Itch' Outbreak In Baltimore Stopped by Aid Of New Insecticide Material

Piperonyl Butoxide Used
To Control Insect Mite

The owner of a local broom factory in Baltimore, Maryland, recently called on the City Health Department's Division of Industrial Hygiene for aid in controlling a peculiar rash that had suddenly appeared among his employees. The rash was described as itching intensely for about 24 hours, and appeared only on the clothed portions of the body, chiefly about and above the waist. It resembled chickenpox to some extent, and remained on the skin for a week or ten days after exposure.

Example of Medical Detection

Tracking down the cause of this dermatitis



CAUSE OF MYSTERIOUS MALADY affecting Baltimore industrial workers was tracked down with aid of U.S.I. entomologists. A U.S.I. chemical brought about complete control of the disease.

was a remarkable example of medical detection. Examination of the symptoms suggested to the Health Department's dermatologist that the outbreak might be the rare "grain itch," described in Ormsby's "Diseases of the Skin," and caused by the insect mite known as *Pediculoides ventricosus*.

At this stage of the investigation, the Bureau of Industrial Hygiene called in a leading entomologist attached to the insecticide research laboratory of U.S.I. in Baltimore. With the aid of this expert and his assistants, the mites were identified as those described by Ormsby—and it was also found that the Angoumois grain moth, one of the normal hosts for the parasitic mite, was present as well. The insects were apparently brought into the plant on broom corn which probably became infested in a freight car previously used to transport grain.

Control Measures Taken

Upon identification of the cause of the outbreak, the plant

MORE

THE AMERICAN HYDROCARBON SYNTHESIS: IV

American Version of Hydrocarbon Synthesis Replaces Older Methods

Improvements Permit Production of Oxygenated Chemicals,
Fuels at Costs Competitive With Other Processes

To American engineering skill, we owe the conversion of "hydrocarbon synthesis" from intricate intermittently operating units to large continuous ones—from the removal, regeneration and recharging of a catalyst to its continuous reactivation—and from operations that

New Method for Synthesis Of Alkylmalonic Esters

A procedure is reported in a recent issue of an American scientific journal for the condensation of oxalic esters with fatty acid esters up to stearic. Up to the time of publication, condensation of oxalic esters with fatty acids up to only butyric acid had been described.

In the current study, it is found that by removing by-product alcohol in Claisen condensations involving ethyl oxalate, and by adjusting the relative amounts of ethyl oxalate to fatty acid ester in these reactions, it becomes possible to obtain excellent yields of alpha-ethoxalyl esters. These esters are thermally decarbonylated to give high yields of alkylmalonic esters.

Rapid Sulfate Assays

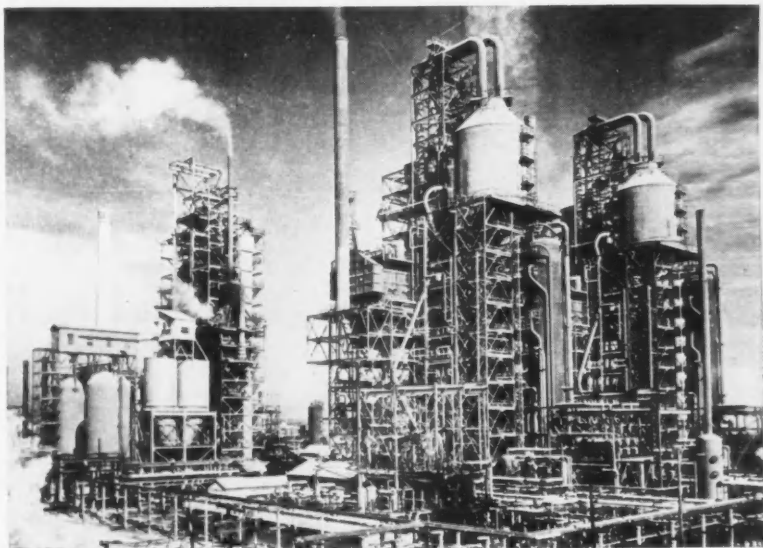
The availability of pure tetrahydroxyquinone points the way to more rapid sulfate determinations, it was announced recently. This chemical is an indicator in the volumetric determination of sulfates by direct titration with barium chloride solutions. Tetrahydroxyquinone was formerly not generally available.

were wasteful of manpower to operations susceptible to automatic control. Improvements permit the production of fuels and oxygenated chemicals at costs competitive with other sources. Oxygenated chemicals from the American hydrocarbon synthesis—alcohols, ketones, and acids—will be made available by U.S.I.

Takes Clue From Petroleum Engineers

A large part of the technological deficiencies in the older method has been eliminated in the American hydrocarbon synthesis process by stealing a page from the petroleum engineer's notebook. In catalytic cracking, our petroleum refiners faced the problem of bringing gaseous material in contact with solid catalysts while adding heat to the reaction rather than removing it—a problem faced by chemical engineers in dealing with the hydrocarbon synthesis. Problems of uniform gas distribution over the catalyst, uniform temperatures, prevention of "hot spots," and catalyst regeneration troubled them, too. In solving these puzzles, they made a notable contribution to chemical technology—the Fluid Catalyst Technique. This technique has been applied to the hydrocarbon synthesis reaction and, although much has been written concerning the technique itself, a brief

MORE



CLUE TO IMPROVED HYDROCARBON SYNTHESIS was found in catalytic cracking plants. Taking a leaf from the petroleum engineer's book, American chemical engineers adapted the "Fluid Catalyst Technique" to hydrocarbon synthesis... helped make the method competitive with others.

Methionine Protects Rats Against Liver Poisoning

Damage to rats' livers produced by diets containing pyridine may be avoided by the application of DL-methionine, it was announced in a scientific paper published recently. The paper, the third in a series exploring the mechanism of liver and kidney injury, adds further data to the growing body of proof concerning the detoxifying action of methionine. With increased production by U.S.I. of low cost synthetic DL-methionine, in addition to a newly announced price cut, the product has become available for bulk shipments for pharmaceutical manufacturing and commercial consumption.

New Convenient Sizes

Solox, U.S.I.'s popular proprietary alcohol-type solvent for general use, is now packaged in two new sizes: quarts and pints. The quart containers are supplied to dealers in cases of 24, the pint containers in cases of 48.



CONTINUED

'Grain Itch' Outbreak

was sprayed with piperonyl butoxide, one of U.S.I.'s new insecticides which is deadly to insects, but harmless to all warm-blooded animals. The use of piperonyl butoxide rapidly destroyed the insects, completely eradicating the disease.

CONTINUED

Hydrocarbon Synthesis

description is warranted.

Fluid Catalyst Technique

The technique derives its name from the "fluidization" of solid particles. When finely ground catalyst is suspended in a gas stream, the particles are carried along with it. They can be moved as suspensions through pipes and valves, and held in reaction and catalyst reactivation chambers as a turbulent—"boiling"—mass with the appearance, and some of the properties, of a liquid. Reacting gases are used to carry the catalyst powder upward into the large cylindrical catalyst chamber or reactor. The solids can be separated from the reaction products by a cyclone separator through which pass the produced gases. Heat is removed by cooling water tubes, but these, because of the improved heat transfer due to turbulence, can be larger and fewer.

But the catalyst must be reactivated by burning off the carbon which forms. To do this, the catalyst is drawn continuously from the reactor into a stream of pre-heated air which carries it to the reactor. The reactor is a large cylindrical vessel like the catalyst chamber, and the "fluid" solid is in the same turbulent state. In both cases, the "boiling" catalyst bed eliminates "hot spots," saves equipment, and results in more uniform product. Catalyst regeneration is continuous and is accomplished without dismantling of equipment, or removing and recharging catalyst. Capacity per unit is multiplied many times.

Adapt Iron Catalyst

To the Fluid Catalyst Technique, American engineers have adapted an iron catalyst for the synthesis reaction. This material possesses properties which make it a great improvement over the German catalyst. It has greater mechanical strength, and, of most importance, a greatly reduced cost. Moreover, its use results in the production of oxygenated chemicals.

Rot-Resistant Cotton

The best means yet discovered for protecting cotton fabric and yarn from mildew and other forms of rot is to convert part of the fiber chemically to cellulose acetate, similar to acetate rayon, it was reported recently by a government research bureau.

TECHNICAL DEVELOPMENTS

Further information regarding the manufacturers of these items may be obtained by writing U.S.I.

A new coating compound for spray booths is said to form a continuous white coating to which overspray adheres. To clean the booth, the coating plus adhered paint is easily removed by scraping, or by flushing with hot or cold water, the manufacturer states. (No. 305)

A new refrigeration sealer, described as odorless, resilient, moisture- and vapor-proof, and sufficiently pliable to resist normal impact and torque action, is claimed to be useful on all types of food cabinets and refrigeration equipment. (No. 306)

A "photo plastic" that can be cast in chunks from 10 to 20 times larger than any other resin of this type, can be molded and cut into exact models of industrial tools or machine parts, then tested under stress to aid in the design of machinery. A unique alleged property of this plastic is that it "freezes" stress patterns. (No. 307)

A non-curling carbon paper is claimed to be over one-third stronger than the ordinary carbon paper, and to possess greater moisture resistance and flexibility. (No. 308)

Resins made from cashew nuts are described in a new booklet. The resins are alleged to be useful for laminating, waterproofing, for friction fortifiers in brake linings and clutch facings, and for many other industrial applications. (No. 309)

To determine the friction qualities of yarn, a new lubricity tester has been placed on the market which is claimed to establish the quantitative relationship between coefficient of friction and abrasion resistance. (No. 310)

A new non-injurious cold paint stripper, claimed to remove paints, lacquers, enamels, synthetics, and wrinkles almost instantly, is said to require no neutralizing action other than wiping with a rag. (No. 311)

To determine the presence of carbon monoxide, a new instrument has been developed which requires no special training to use and is capable of indicating the presence of carbon monoxide from 0.001 to 0.10 per cent by volume in air, according to the manufacturer. (No. 312)

A pocket alarm watch, no larger than the ordinary pocket watch, contains an accurate bell-alarm which may find wide use in industry, the makers state. (No. 313)

To detect small amounts of oxygen in organic compounds, a new apparatus has been invented. It is said to make use of the decomposition of a weighed sample by heating in an atmosphere of oxygen-free helium. (No. 314)

U.S.I. INDUSTRIAL CHEMICALS, INC.

60 EAST 42ND ST., NEW YORK 17, N. Y.



BRANCHES IN ALL PRINCIPAL CITIES

ALCOHOLS

Amyl Alcohol
Butanol (Normal Butyl Alcohol)
Fusel Oil—Refined

Ethanol (Ethyl Alcohol)

Specially Denatured—all regular and anhydrous formulas
Completely Denatured—all regular and anhydrous formulas
Pure—190 proof, C.P. 96%
Absolute
*Super Pyro Anti-freeze
*Solox proprietary Solvent

*ANSOLS

Ansol M
Ansol PR

*Registered Trade Mark

ACETIC ESTERS

Amyl Acetate
Butyl Acetate
Ethyl Acetate

OXALIC ESTERS

Dibutyl Oxalate
Diethyl Oxalate

PHTHALIC ESTERS

Diethyl Phthalate
Dibutyl Phthalate
Diethyl Phthalate

OTHER ESTERS

*Diolol
Diethyl Carbonate
Ethyl Chloroformate
Ethyl Formate

INTERMEDIATES

Acetoacetanilide
Acetoacet-ortho-anisidide
Acetoacet-ortho-chloranilide
Acetoacet-ortho-toluidide
Acetoacet-para-chloranilide
Alpha-acetylbutyrolactone
5-Chloro-2-pentanone
5-Diethylamino-2-pentanone
Ethyl Acetoacetate
Ethyl Benzoylacetate
Ethyl Alpha-Oxalpropionate
Ethyl Sodium-Oxalacetate
Methyl Cyclopropyl Ketone

ETHERS

Ethyl Ether
Ethyl Ether Absolute—A.C.S.

FEED CONCENTRATES

Riboflavin Concentrates *Vitamin 40
*Curbay B.G. *Curbay Special Liquid

ACETONE

Chemically Pure

RESINS

Ester Gums—all types
Congo Gums—raw, fused & esterified
*Aralap—alkyds and allied materials
*Aroclene—pure phenolics
*Aroclene—modified types
Natural Resins—all standard grades

OTHER PRODUCTS

Celluladons Ethylene
Ethylene Glycol Urethan
Nitrocellulose Solutions DL-Methionine
Insecticide Materials Insecticide Materials
Printed in U.S.A.

MOLYNEUX OPENS HERE

Captain Edward Molyneux, prominent Parisian designer, was in New York last month to complete arrangements for the introduction of his new perfume, "Magnificence," which makes its debut in April at Bonwit Teller on Fifth Avenue, and in other large stores, one to a city, across the country. This new scent, which is the seventh successful one developed by Captain Molyneux, will be shipped direct from Paris, rather than being bottled here. Before returning to Paris, Capt. Molyneux announced that John J. Fenlon, formerly with Chen Yu, had been selected to head up the American operation, as vice president in charge of sales and promotion.

DOESN'T MAKE SENSE

Every so often, we receive a letter—usually mimeographed or facsimile—with notice of closure of a bid, or notice for last payment date of taxes, or time expiration date for submitting a possible prize slogan, and every so often the date in the letter is far past the date of our receipt of the letter. Such a waste! And the recipient gets all heated up over the opportunity he reads about in the letter, but gets all cooled off when he comes upon the expiration date that has already passed by. So, the writer of the letter is prominently spotted in our little black book.

WHAT ABOUT 1948?

John R. Gilman, vice president in charge of advertising for Lever Brothers, spoke before the American Management Association's Marketing Conference, held last month in New York at the Hotel New Yorker. His subject was "An Advertising Philosophy For 1948." Copies of the address may be obtained by writing to him at Cambridge, Mass.

STORE OF FUTURE

Representatives of fifteen retail associations, three retailing groups, and three associations directly involved in store modernization comprise the advisory committee sponsoring the Second International Store Modernization Show which will be held at the Grand Central Palace, New York, July 6-10, inclusive, reports John W. H. Evans, managing director. The drug field will be represented by Frank M. Head, vice president of Whelan Drug Stores, who will represent the National Association of Chain Drug Stores. In addition to exhibits

at the convention, there will be days given over to clinics on store modernization problems, conducted under experts. Admission to the show will be by invitation only, which can be arranged through exhibitors or with the show headquarters at 40 East 49th Street, New York 17, N.Y.

WHAT NEXT?

The general practitioner is headed for more and more courses of instruction. The poor fellow is hounded from pillar to post. On the one hand, he is unfit to have a case on the ward in dermatology, because he is not a dermatologist. On the other, he is to take courses in dermatology to enable him to treat, or to refer for treatment, patients with skin diseases! And, now, devilish thought, suppose a dermatologist requested admission of a patient to the hospital to enable him to treat for typhoid fever? Doesn't that have spots?

THINKING ALOUD

Did you glance at the requests for new positions by that Commissioner of Health of that Big city on the Hudson River? There was about everything possible from infancy to old age. Each with a director, and a host of deputy commissioners, and a wealth of administrative assistants, and more clerks, and what-have-you. But, not one word about the already over-long list of acting directors for existing bureaus. The reason probably being because it is impossible, or not good politics, or something else, to request civil service examinations for these positions.

A GOOD BET

Back to that old blood bank controversy. It seems a good bet has been overlooked. It was advanced during the war but has been neglected. As a wartime measure, the suggestion was made to have the soldiers and sailors provide their blood for their own blood bank, when in need. Right now, it may be asked, why not have patients in the hospitals provide blood for themselves and their fellow unfortunates?

WAIT AND SEE

We see where a couple of women have gone off to Australia to undergo treatment by that non-medical fellow with a cure he refuses to divulge. Well, Australia is far off and maybe the distance lends enchantment.

SUCH IS LIFE

And if you think your doctor doesn't shorten his life, just let the Metropolitan Life Insurance Company tell you otherwise. After 35, it states, the prospective life of the American physician is somewhat less than for white persons in the general population. A shorter life, but a merrier one!

PAIRING OFF

Ho ho, and a bottle of streptomycin and penicillin for a specialist, F. H. Redewell, who writes in the Journal of Urology, telling of the success of combining the two chemicals and securing results not obtained with either. So, nature has its turn—you just cannot make things work, except in twos.

A REVIVAL

And not to forget the vitamins, which seem to be gradually dropping from the news. A research man, writing in the Indiana Medical Gazette, tells of burning feet being caused by a deficiency of pantothenic acid—a specific distress and a specific quotient of the complex. So, there!

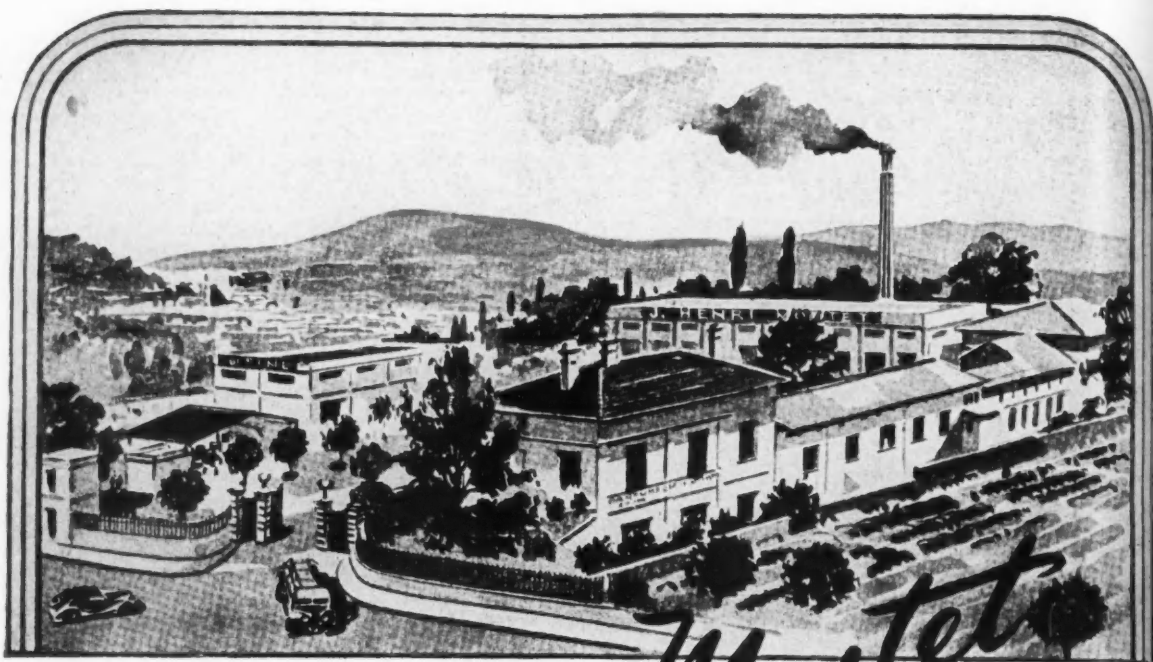
E.R.D. COSMETIC TEST

The E.R.D. Test is a scientific method of evaluating a cosmetic product. Carried out in the modern, completely equipped laboratories of Evans Research and Development Corp., 250 East 43rd Street, New York City, these tests are under the direction of physicians, chemists, analysts, and specially trained technicians. These tests have brought to light a wealth of factual, legal and technical data that has resulted in new fact-proven advertising and promotion themes, increased sales and profits. Free booklet available for the asking.

PURELY PERSONAL

ARLINGTON KUNSMAN has been appointed manager of Du Pont's Cellophane Division to succeed Thomas L. Hines, who retired on March 31st.

WALTER A. MILLER, president of Federation Employment Service, enlisted the aid of the drug and cosmetic industry, in a special campaign staged during April, to educate the public as to the fitness of older people for employment, and to actually promote jobs for workers who are past 40. This organization is located at 67 West 47th St., New York.



J. Henri Moutet

USINE ST. CLAUDE
GRASSE



FLOWER OILS · ESSENTIAL OILS & AROMATICS
for the
SOAP · PERFUMERY · COSMETIC & ALLIED TRADES

Laboratories, Distilleries & Head Offices: GRASSE · A. M. FRANCE



JOHN A. EGAN, formerly with Harriet Hubbard Ayer, has been named sales manager of the retail division of Helene Curtis.

PERCY C. MAGNUS, president of Magnus, Mabee & Reynard, prominent New York Essential oil house, was host last month to over 400 guests at a cocktail party and dinner at the Hotel Pennsylvania in New York, during the convention of the Druggists Supply Corp. Guest speaker was Cyril Lander, president of the National Drug & Chemical Co. of Canada, Ltd. Entertainment and past convention movies offered guests an evening of pleasure.

JACK LEVANT, formerly with McKesson & Robbins, becomes sales manager of Toni's wholesale division, as Joseph Lewis, formerly with Norwich Pharmacal Co., is named merchandising manager of Toni.

MIKE FOLENSBEE, formerly with Ritchie & Janvier, has been named Eastern division sales manager of Standard Laboratories' Toiletries Division.

LEONARD T. BEALE, president of the Pennsylvania Salt Manufacturing Co., has been elected a member of the National Industries Conference Board, at the Board's 294th Meeting, held in New York.

DR. JOHAN BJORKSTEN, president of the Bjorksten Research Laboratories has announced the addition of a patent department to his organization, for service to clients, for collaboration with corporate patent departments, for counsel in chemical cases and for handling chemical patent problems.

W. B. LINCOLN, JR., technical manager of the Inland Corporation of Indianapolis, Ind., and chairman of the Technical Committee of the Shipping Container Institute, spoke before the 33rd Annual meeting of the Technical Association of the Pulp and Paper Industry and presented a progress report entitled "How Good Must a Shipping Container Be?"

DOW CHEMICAL CO., primary producer of synthetic amino acids, recently announced substantial price reductions on quantity orders of dl-tryptophan and dl-methionine, resulting in appreciable savings.

H. W. DODGE, chairman of the Board of Air Products, Inc., and chairman of the Chemicals, Paper and Petroleum Section of the Manhattan Commerce and Industry

Committee, appealed to all the borough's chemical, drug, paint and varnish, paper, petroleum and rubber firms to raise its \$330,000 quota for the Red Cross.

BURTON BROWNE ADVERTISING of Chicago has announced the establishment of a fashion division with Jo Adamsson, former fashion coordinator for Chicago's State Street Council, in charge, to give special service in fashion advertising, merchandising and promotion for designers, stylists, dress, millinery and cosmetic manufacturers.

JOSEPH MORNINGSTAR, president of Morningstar, Nicol, Inc., has announced the consolidation of its industrial adhesive manufacturing subsidiaries, Paisley Products, Inc. of Ill., and Paisley Products of New York, as of January 1, 1948.

ROBERT SHELDON, formerly with Revlon Products Corp., has been named vice president and general manager of the Saron Corp., manufacturers of Margaret O'Brien Toiletries.

JACK LLOYD, formerly with Windsor House Ltd., and prior to that with Geo. W. Luft Co., joins Bombi, perfumers, to take charge of their Pacific Coast sales.

HIRSHON-GARFIELD, INC. announce the appointment of Rose Toth as director of cosmetic and fashion publicity. She formerly was director of Ann Haviland perfumes publicity, and more recently associated with Geyer, Newell & Ganger, Inc.

JON SOBOTKA (Manhattan public relations) has been appointed by Jacques Fath, Parisian couturier, to supervise the publicity and promotion of his fashion collection and new line of perfumes and colognes.

RUTH ANN BOLWAY, former associate promotion director of *Charm Magazine*, and prior to that connected with Dana, and Shulton, has opened her public relations office at 33-54 83rd Street, Jackson Heights, Long Island, New York. Her first account is Jean Nate's line of bath preparations.

ST. LOUIS COSMETIC CLUB changes the dates on its Toiletries Show to September 7-10.

JACQUES DENOVE, president of Seventeen Cosmetics, reports that the recent fire at their New Jersey factory did not impede production, since it was confined to a warehouse.

J. MALCOLM MILLER has been named acting secretary of the American Soap & Glycerine Producers Association, by George A. Wrisley, president of the Association, to succeed Roscoe C. Edlund, who resigned.

HARRIET HUBBARD AYER held a preview of its refined and repackaged line at the Waldorf-Astoria last month for the press.

SAMUEL RUBIN, president of Faberge, was among the first to respond to a call for funds sent out by the Sydenham Hospital of New York, when it was about to close its doors. Mr. Rubin sent a check for \$25,000.

R. F. JEFFCOTT, formerly with Affiliated Products, has been named director of chain store sales for Jean Jordeau.

HARRY HAUSS of Geo. W. Luft Co., and Mrs. Haus, sailed March 26 on a six-weeks business trip to South America, aboard the S.S. Uruguay.

PIERRE HARRANG has returned from a well-earned Florida vacation.

KENT has a new hair brush that perfumes the hair as it is brushed.

SEAFORTH announces a new Traveler Set of Men's Toiletries. It's a three piece combination and sells for \$3.75.

DONALD HOPCRAFT has resigned as sales manager of Dana.

HARRIET GROVES, formerly with Hattie Carnegie, has joined Chas. Foster as public relations director.

SHULTON has recently introduced a Cream Deodorant For Men.

JEAN NATÉ has repackaged her well known Bath Bubbles product.

HELENA RUBINSTEIN held a house-warming at her new salon and executive building at 655 Fifth Avenue, on April 6.

DONALD HAMILTON, formerly with the Fitch Co., joins Verd-A-Ray as Eastern sales manager.

ARTHUR WEGLEIN, president of Draper Soap Co.; William Perridge, formerly of Conti; and John Hardy, formerly with Prince Matchabelli, and Joseph Fischler are the new owners and officers of Daggett & Ramsdell, which account will be handled in the future by Erwin, Wasey of New York.

PERFUMERS

BASIC MATERIALS



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Opopolyl B.A. is based on a new and modern ingredient. It is truly an utility product for it has several outstanding uses, chiefly among which is its ability to round out, sweeten, and make the perfume more lasting.

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TEXTILE CHEMICALS	•	INDUSTRIAL SPECIALTIES		
QUARTERNARY AMMONIUM COMPOUNDS				

THE ROUND TABLE -

Library of Society of Cosmetic Chemists

The formation of a central library of books, periodicals and general information relating to the science and art of cosmetics and perfumery is envisioned by the Society of Cosmetic Chemists.

The members of the present committee are: Chairman, Edward Sagarin, Givaudan-Delawanna, Inc.; Florence E. Wall, consulting chemist, author and lecturer; and Frederick J. Rowse, Norda Essential Oil and Chemical Co.

Program for Flavoring Manufacturers Announced

The program of the 39th annual convention of the Flavoring Extract Mfrs. Assn. of the United States, which will be held May 23-26 at the Hotel Pennsylvania, New York City, will include: "Some Contributions of Chemistry to the Flavoring Industry," "The Food Industry Looks Ahead," "Vanilla," "The Sugar Situation," "Vanilla Beans," "Essential Oils," "Glass Closures," "The New Look of American Business," "Notations of a Perfume Chemist on Flavors," "Development of Research of Organic Chemicals," "Essential Oils and Allied Products" and "Methods and Types of Equipment Used in the Dairy Industry." Registration at 10 A.M., May 23.

de Meneval, Paris Representative to Arrive Soon in U.S.

M. Francois de Meneval, Paris representative of the firm of Dodge & Olcott, Inc., New York City, and a partner of Pories & de Meneval S.A.R.L., Paris, will arrive in New York May 10 on the S.S. Wisconsin. M. de Meneval has been in the essential oil business as a broker since 1921, and is vice president of the Syndicate of Essential Oils, which

groups all the importers and traders in essential oils and prime aromatic materials.

M. de Meneval plans to remain in New York for three weeks during which time he will be in conference with officials of Dodge & Olcott to plan for further expansion in the distribution of D & O products in France. He can be reached by appointment, at their office in New York City.

M. de Meneval is the great-grandson of the Baron de Meneval, who served Emperor Napoleon the First



Francois de Meneval

as private Secretary. M. de Meneval saw action in the two world wars and was held prisoner in World War II, after the siege of Dunkirk. He was decorated with the Croix de Guerre and is a Chevalier of the Legion of Honor.

TGA Convention Date

The annual convention of the Toilet Goods Association is to be held May 18-20 in the Hotel Waldorf-Astoria. Karl Voss is chairman.

Dr. Thomas to Receive Gold Medal of AIC

Dr. Charles A. Thomas, executive vice-president and technical director of Monsanto Chemical Co., St. Louis, Mo., has been selected to receive the 1948 Gold Medal of The American Institute of Chemists.

Guest Speakers for Aromatics Course

The students of the Aromatics Course held at New York University will hear the following guest speakers: April 5, A. L. van Ameringen, van Ameringen-Haebler, Inc., "Perfumery Since 1900"; April 12, Dr. Albert Pacini, Prince Matchabelli, Inc., "Control Procedures"; April 19, Solon M. Palmer, Solon Palmer, Inc., "Depicting Perfumery During the Second Half of the 19th Century"; April 26, George Fiedler, Kelton Cosmetics, Inc., "What the Perfumer Should Know About Cosmetics"; May 3, Dr. Paul Z. Bedoukian, Compagnie Parento, Inc., "The Relation Between Natural Flower and Flavor Oils"; May 10, Philip Chaleyer, Philip Chaleyer, Inc., "The Perfuming of Toilet Preparations." Samuel Klein of Syntex Scientific Laboratories, Inc., is conducting the course.

New Cosmetic Firm Created

A new firm to manufacture or sell cosmetics and detergents has been formed in Albany, N.Y. known as Ben Atkis, Inc., the firm is capitalized at \$10,000, and is authorized to issue stock to that amount. Incorporators are: Mr. and Mrs. Arthur T. Bennett, 236 State St., Albany, N.Y., and Mrs. William R. Atkinson, New Britain, Conn.

Samuel Rubin's Contribution Saves Sydenham Hospital

A last-minute contribution of \$25,000 from Samuel Rubin, president of Faberge Perfumes, saved the Sydenham Hospital, New York, N.Y., from closing. Mr. Rubin's gift was on the birthday of his son, "Buzzy," who was born in the Sydenham Hospital just twelve years previously.



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The chemical elements of which women are compounded are always the same. Nature's formula is basic. But the results are so different—in body structure and facial beauty.

Nothing could be more to the point in illustrating our case. There is far more to compounding any cosmetic than a knowledge of the basic formula. To achieve maximum results in customer appeal and repeat sales, there must be something else—something that sets a product apart.

For more than 40 years we have served our private label customers with more than the basic formula. We have given them our experience in cosmetic formulation and manufacture which extends beyond chemical knowledge.

Their success has been, in a measure, our success—a measure of product quality and appeal which we should like to demonstrate to you.

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All the subtle, true fragrance of Jasmine absolute is captured in Jasmogee — the finest simulation of the natural bouquet attained synthetically. Let this latest creation of our research laboratories convince you of its superlative quality by sending for a sample today.

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Manufacturers of
Aromatic Chemicals, Essential Oils and Perfume Compounds

Peak Receives Old Dominion Promotion

Malcolm A. Peak, who, except for a three year period in the Navy, has been associated with Old Dominion



Malcolm A. Peak

Box Co. for 27 years, was recently named manager of the Standard Line Division of that company. Since 1920, when he started as shipping clerk, Mr. Peak has served as production superintendent, purchasing agent, and sales manager of various divisions.

Henry Graw Joins Sales Staff of Belmay, Inc.

Henry J. Graw who has been associated for the last 15 years with

a leading essential oil company has joined Belmay Inc., New York, N.Y., in the sales department. Mrs. Marion Lewis Sobel who earned an enviable reputation as a perfumer before the organization in 1930 of Belmay Inc., will continue, as in the past 18 years, to be its perfumer. The business affairs of the company are directed by Milton Sobel.

"Kommon Scents" in Booklet Form

"Kommon Scents", a humorous column which appears in trade paper advertising for Kelton Cosmetic Co., has been brought out in booklet form under the name "A Grin's Eye View of 1947."

Packaging Machinery Mfrs. Announce Two Spring Meetings

Packaging Machinery Manufacturers Institute has announced two membership meetings. On April 26 the group will hold a business meeting and dinner at the Hotel Statler, Cleveland, Ohio. A special three-day meeting of the Institute, scheduled for the Homestead Hotel, Hot Springs, Virginia, May 22-25, is expected to attract a large attendance.

Mulford Promoted by Atlas Powder

Kenneth E. Mulford has been appointed assistant general manager of the Industrial Chemicals Depart-



Kenneth E. Mulford

ment of the Atlas Powder Co. Mr. Mulford will make his headquarters in the general offices of the company in Wilmington, Del. He was formerly assistant director of the legal department. Mr. Mulford started with Atlas in 1934. He graduated from George Washington University in 1929. After a year with Silica Gel Corp., he worked with the U.S. Patent Office for four years.

Mr. Mulford received his LL.B. degree from George Washington University in 1934.

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Martin F. Schultes Recouperating from Critical Illness

Martin F. Schultes, founder of the BIMS, returned early in April from Natchez, Miss., and Mobile, Ala., where he spent three weeks recuperating from his recent serious illness. He felt so well, in fact, that he drove his car all of the way home.

His host of friends throughout the industry will be delighted to know that he is again back in his office to greet callers and supervise his business.

Monteleoni to Head Exports for Syntomatic Corp.

The Syntomatic Corp., New York, N.Y., has announced the appointment of Leo Monteleoni as export manager.

Mr. Monteleoni received his early grounding in chemistry as a student at the University of Florence. He has since practiced the application of chemistry both in the United States and abroad. He is especially familiar with essential oils, perfume compounds, and flavoring materials, having devoted a great deal of his career to these specialties.

Mr. Monteleoni first came to this country during the war, commanding the Italian submarine Dandolo, on a secret mission for the United States Navy. For his work on this mission he received a special letter



Leo Monteleoni

of commendation from Admiral Nimitz and additional citations from other Naval authorities.

Mr. Monteleoni will make his headquarters in New York and will have complete charge of all of Syntomatic's export activities.

Elizabeth Arden in SEP Story

A lengthy article based on the success story of Elizabeth Arden is to appear in a forthcoming issue of *The Saturday Evening Post*.

The story is entitled "High Priestess of Beauty," by Hambla Bauer, and will appear in the April 24 issue.

Daggett & Ramsdell Changes Hands

Daggett & Ramsdell, an affiliate of the Standard Oil Co., (New Jersey) since 1929, was organized in 1890 by the late V. Chapin Daggett and Clifford Ramsdell in a small Fifth Avenue drug store.

Last month, it was announced that the firm had been purchased by a New York cosmetic group consisting of: William J. Perridge, who has been associated for many years with Conti Products Corp., and who will become president; Arthur A. J. Weglein, president of the Draper Soap Co. of Pawtucket, R.I.; John J. Hardy, formerly associated with Prince Matchabelli; and Joseph J. Fischler, C.P.A., who will become treasurer of the company.

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Dodge & Olcott Celebrates 150 Anniversary

Founded in 1798, at 128 Pearl St., New York, N.Y., and passing through a number of changes of name to become Dodge & Olcott in 1861, D & O is celebrating its 150th anniversary this year. In 1945, when it had become the oldest and one of the biggest essential oil houses in the country, it was merged with U. S. Industrial Chemicals, Inc.

Paisley to Have "Information Bar"

An adhesives "Information Bar" will feature the exhibit of Paisley Products, Inc., at the annual Packaging Exposition in Cleveland, Ohio, April 26-30.

Luis de Hoyos Suffers Heart Attack in New York City

Luis de Hoyos head of Synfleur Scientific Laboratories, Monticello, N.Y., suffered an attack of coronary thrombosis late in March while in his room in the Hotel Belmont Plaza and since then has been con-

fined to the hospital. Latest reports indicate that he is making encouraging progress and every indication points towards a slow but sure recovery. During his enforced rest his son is directing the affairs of the company.

Product 117 Years Old Honored

Amami, which has been identified with shampoo, hair preparations and toiletries manufactured by Prichard & Constance, Inc., Bloomfield, N.J. since 1831, was cited with a "Certificate of Public Service" by the Brand Names Foundation on March 30.

DCAT Dinner a Sell-Out

Over 2,100 leaders in the drug, chemical, cosmetic and related industries from all parts of the country attended the 22nd Annual Dinner of the Drug, Chemical and Allied Trades Section, New York Board of Trade, Inc., held March 11, in the Grand Ballroom of the Waldorf-Astoria Hotel.

Fred J. Stock, chairman of the



Harold Hutchins congratulates Gertrude Brows, fashion director of Chen Yu Incorporated, after a broadcast with Maggi McNellis. Chen Yu presented a fashion show with Tina Leser gowns designed to dramatize Chen Yu's new shade, "Coral Fan." Dawn and Marilyn Chu, the "Chen Yu Girls," distributed samples of nail lacquer before the broadcast.

Section, presided. The principal speaker was Leland Stowe, who addressed the gathering on "Behind the Czech Tragedy." Lloyd I. Volckening was in charge of dinner arrangements. Robert B. Magnus headed the reception committee.

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B-W Lanolin the superior quality puts into your cream that which gives the skin that smooth soft velvety feeling.

B-W Lanolin will never cause your cream to darken, is best by test and contains over 15% free and combined Cholesterol.

No other base used in your cream, equals the merits of B-W Lanolin.

B-W HYDROPHIL (Absorption Base) Made in U.S.A.

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Amie Products Announces Removal of its Plant

Amie Products, Inc., announces the removal of its plant to 1 Pleasant Ave., Clifton, N.J. The firm's office is located at 15 Park Row, New York 7, N.Y. Telephone is Beekman 3-6440. The company requests that inquiries and correspondence be directed to its New York office.

William Rice Joins Lenel

William L. Rice has been appointed general sales manager of the Lenel Co., Dallas, Texas. Mr. Rice was previously associated with Max Factor of Hollywood for approximately fifteen years.

Nourse Becomes Chairman of BIMS of Boston

M. E. Nourse of Howe & French, Inc., was installed as chairman of the BIMS of Boston at the Annual Winter Banquet held at the Weston Golf Club on March 3. He succeeded Ernest C. Ingham of Ingham of Boston. Mr. Ingham was presented with a gift by the members and made an Honorary Member.

D. J. O'Connell of Howe & French, Inc., and Warren E. Johnson of U.S. Industrial Chemicals Co. were installed as new members of the Executive Committee. There were four prize winners: J. J. Flanagan, F. J. Hailer, H. L. Ingham and H. B. Hawk.

Owens-Illinois Closure Division in New Plant

Transfer of operations of the Toledo, Ohio, closure and plastics plant to the Owens-Illinois Co., to St. Charles, Ill., has been completed, according to H. J. Carr, vice-president and general manager.

Movement of machinery and equipment was carried out with a minimum of interference to the operating schedules.

Packaging Course at University of Illinois

Paul O. Vogt, president of the Industrial Packaging Engineers Association, has announced that the University of Illinois will conduct a Packaging and Materials Handling "Sort Course" as a part of the Association's Third Annual Industrial Packaging and Materials Handling



Shown here is a new label and carton created and printed by Richard M. Krause, Inc., for the new "Heartstrings" perfume, product of Nina De Lisle. The label is gold engraved on white stock and its unique design conforms to the structure of the bottle. The carton is bright gold foil with blue colored lettering. The signature, also created by Richard M. Krause is planned to simulate a string.

Exposition. The Exposition proper, which will consist of product exhibits in the Packaging and Handling fields, will run from October 5 to 7, Hotel Sherman, Chicago, Ill. The course will open one day earlier than the Exposition.

OIL ORRIS ROOT LIQUID ABSOLUTE ORRIS CONCRETE ORRIS OLEORESIN (Resinoid)

Experience demonstrates that none of the substitutes for Orris are wholly satisfactory in giving the characteristic Orris note. It is therefore fortunate that these well known Bush specialties are now readily available.

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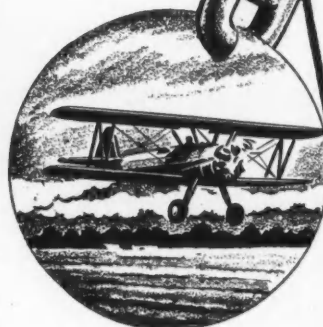
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The American Perfumer

MARKET REPORT

Soap Production Decline

THE conservative attitude displayed on the part of most consumers of essential oils and aromatic chemicals over the first quarter of the year has left room for much optimism in trade circles. An upturn in retail sales of consumer of finished goods should be reflected more quickly in raw material sales than if consumer inventories were heavy as was the case this time a year ago.

With seasonal influences at work, an improvement in the call for several items is perhaps nearer than the reports from some houses would seem to indicate. Increased activity in the beverage and some divisions of the food industry will perhaps be the first to be felt in oils sales. Small inventories held by perfumers and proprietary manufacturers should aid in stimulating raw material sales on any upturn in retail volume.

DECLINES PREVAIL IN ESSENTIAL OIL PRICES

Pricewise, declines have continued to outnumber advances in essential oils. An interesting factor in the market, however, is that fewer changes have been taking place from day-to-day, and with but few exceptions the declines appear less severe than in recent preceding months.

The continued downward trend is also bringing buyers closer to the period when a reversal in the trend will be noted. With consumer inventories at a low level such a reversal could materially influence future costs.

Tartaric acid was reduced 4 cents per pound without the reduction being immediately reflected in the prices of other tartrates.

The soft coal strike created considerable attention in the aromatic chemical market especially in the light of an already short supply of a number of basic coal chemicals including benzol, toluol, xylol, naphthalene and phenol from which a great many aromatics are made. Natural phenol production will be materially affected and a similar tightening in the position of synthetic phenol will undoubtedly be noted should the coal strike be continued for any length of time.

Other price developments in the market included an advance of 10 cents a pound in saccharin, and reductions in certain grades of industrial alcohol. Thymol remained in a tight supply position. One principal maker reports that it will not have any material available until July or August, while another maker is still being forced to allocate deliveries in order to take care of necessary requirements of all of its customers. It is understood, how-

ever, that production could easily be increased if it were possible to obtain larger quantities of raw material.

With soap production having declined, glycerin deliveries are likely to fall behind during the current month. Some refiners will be delivering in April a portion of their March commitments. Glycerin, a byproduct of the soap kettle, is quickly affected by any fall or rise in soap production. Because of the February break in commodities glycerin buyers have been inclined to be extremely cautious in their operations. Stocks of crude glycerin, 100 per cent basis, increased 954,000 pounds to 49,490,000 pounds in January which is rather close to the 50,000,000 pound mark that is regarded in trade circles as a fairly comfortable supply. Production totaled 20,403,000 pounds in the first month of the year.

The easier trend in menthol was unrelieved. Absence of buying interest especially during the latter part of the period under review served to contribute to the uncertainty that generally prevailed. In the early part of last month there had been a slight spurt in sales during which time the bulk of the Japanese menthol which had been lying around was taken up by buyers. Later in the period however much lower cables from Brazil brought about renewed weakness in the market. In view of the prices quoted from the primary center for May-June shipments it is quite likely the local market will go below \$8 per pound.

SHIPMENTS OF GUMS

Among the gums, arabic shipments of important size arrived from Port Sudan. A decline in spot prices although fractional brought the level of the local market close to the prices named by major shippers in the primary center. One lot arriving from Port Sudan amounted to 2,355 bags. Demand for karaya gum has fallen off somewhat. As in many other commodities that come from India however there prevails a general feeling of uncertainty regarding future costs and replacements from the primary center. A considerable quantity of freight is reported to have accumulated at major shipping ports in India and as a result difficulty is being encountered in obtaining freight space on nearby steamers.

Emergency export allocation for 347,200 pounds of coconut oil to Iceland for commercial procurement in exchange for an equivalent amount of copra in terms of oil against International Emergency Food Council allocations from the Philippines has been approved.

CYCLONOL

CHARACTERISTIC ODOR *and* COOLING EFFECT OF MENTHOL

Cyclonol is chemically 1-methyl-3-dimethyl-cyclohexanol-(5). Graphically the structural formula is given in Fig. 1. It may be considered a lower homologue of symmetric or meta Menthol which has the structural formula shown in Fig. 2.

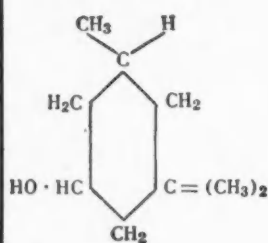


FIG. 1

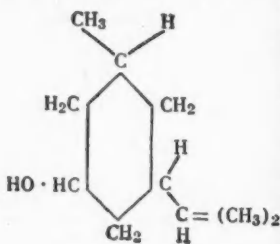


FIG. 2

Cyclonol replaces Menthol satisfactorily in shaving creams and lotions, liniments, analgesic balms, ointments and similar preparations. It has also been accepted by the U. S. Treasury Department as a Denaturant for alcohol in place of Menthol U.S.P.

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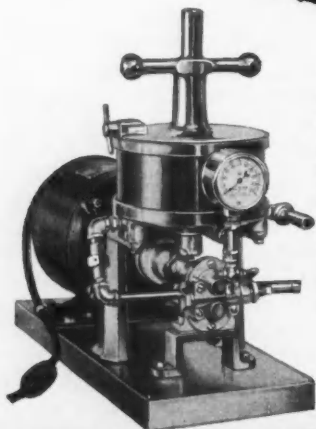
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